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**THE INTERNET AND FOREIGN MARKET ENTRY MODE**  
**- SOME EVIDENCE FROM HONG KONG**

*By*

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A thesis submitted in fulfilment of the requirements for the degree of  
Doctor of Philosophy in Industrial and Business Studies

Department of Marketing and Strategic Management  
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**TO MY DEAR PARENTS**

謹以此論文獻給我的父母

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# DECLARATION

This thesis is my own original work, based on data that I collected and analysed myself. All extracts and un-original content have been appropriately attributed and cited. No part of this thesis has been submitted for a degree elsewhere. The following papers were written during the course of the research:

Chen, H. (2003), Does the Internet Influence Entry Mode Theorising? AIB Conference 2003, Monterey, California

Chen, H., Bridgewater, S. and Pan, S-L. (2002), The Internet and Internationalisation of Firm, Book chapter, forthcoming.

Pan, S-L., M.H. Hsieh and H. Chen (2001), Knowledge Sharing through Intranet-based Learning: A Case Study of an On-line Learning Centre, *Journal of Organisational Computing and Electronic Commerce*, 11(3): 179-195

Chen, H., Bridgewater, S., Pan, S-L. (2001), The Internet and the Internationalisation of SMEs: Three Hong Kong Cases', *Proceedings of the Hawaii Conference of Business*

Pan, S-L., M.H. Hsieh and H. Chen (1999), Knowledge Sharing through Intranet-based Learning: A Case Study of an On-line Learning Centre, *Warwick Business School Working Paper*

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Helen Chen

# ABSTRACT

Perspectives on entry mode choice are broad, emphasising different tenets and variables. However, none of them has examined the impact of the Internet, which has emerged since the 1980s. The thesis aims to investigate to what extent differing Internet usage impacts on foreign market entry mode choice, the achievement of a web site and the performance of a firm. The different Internet uses include using what the technology offers to businesses, getting ready for Internet business by disseminating information online and providing online customer service, and selling products and services online.

Propositions are compiled and tested by using data collected with a structured questionnaire in a survey of 569 Hong Kong firms. Some pilot case studies were conducted to motivate the construction of the questionnaire. Sample firms were selected from the Hong Kong Business Web Directory 2000 and [www.yahoo.com.hk](http://www.yahoo.com.hk). Data obtained through the questionnaire were analysed with the use of hierarchical logistic regression and hierarchical multiple regression models.

It was found that firm size does not affect entry mode choice when the Internet is used, and having previous international experience is not a prerequisite for a firm to choose equity modes. Using what the Internet offers businesses and selling products and services online have a significant negative and positive impact on equity mode choice respectively. Findings on other variables such as special abilities, market potential, investment risk, and transaction cost are all



influential by the use of the Internet, but their effects are less significant. In the examination of the achievement of a web site, special abilities, having previous international experience and using the Internet to sell products and services were found to have significant positive effects; while investment risk and industry type have significant negative effects. In the examination of the performance of firms, special abilities, using what the Internet offers businesses and getting ready for Internet business were found to have significant positive effects. In comparison, transaction cost and mode type have significant negative effects.

Overall, the pattern of findings suggest that Internet usage has important positive and negative effects upon entry mode choice and a range of variables concerning foreign market entry choice, at least from the sample of Hong Kong organisations. The main contributions of the present research are three-fold. First, it has examined the impact of different uses of the Internet on entry mode choice. The findings on the impact of firm size and previous international experience pose challenge to prior perspectives. When the Internet is used in firms' internationalisation, both small and large firms may follow the same pattern. Firms' previous international experience is no longer as important as in prior studies. This has implications for the ways in which prior entry mode perspectives embrace the relative new technology. Secondly, it has investigated these uses in great detail. Prior research depicts different commercial uses of the Internet. In the present research, pilot case studies and surveys were adopted to examine these uses and their impact on entry mode choice. Thirdly, a method was suggested in the present research to measure these uses.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 INTRODUCTION**

The present research investigates to what extent different uses of the Internet influence entry mode choice, and how these uses may contribute to the performance of a firm. A great deal of effort has been devoted to entry mode studies, resulting in several theoretical perspectives. They are categorised here as internationalisation process theory, transaction cost analysis, organisational capabilities perspective, contingency theory and the eclectic framework. These perspectives, built on different concepts, emphasising different tenets and variables, provide some understanding of entry mode. However, all are silent on the impact of new communication technologies which have emerged since the 1980s and 1990s, such as the Internet. This lacuna is one of the wellsprings of the present research. The commercial use of the Internet has impacted significantly on the business world and it has challenged many basic concepts of international business. Therefore, the present research aims to investigate the impact of the Internet on foreign market entry choice. Further, the research is rooted in an interrogation of existing theories or schools of thought, where the Internet has been obviously a neglected factor since these theories pre-date the use of the Internet.



In developing the present research certain propositions are put forward, and a questionnaire was chosen as the best instrument to investigate them. Since there was no previous research on the Internet usage measuring methods, pilot case studies were conducted to help design and provide validation for the construction of the questionnaire. Once the questionnaire had been fully checked and tested, it was administered in a mail survey with the participation of 569 firms in Hong Kong.

The survey data was analysed with the SPSS software package. The unit of analysis in the present research was the firm. Research results showed that two types of Internet usage have significant effects on entry mode choice. Specifically, firms that use what the Internet offers businesses will be less likely to commit resources in a foreign market, i.e. to choose equity modes, and those who sell products and services online tend to launch a foreign operation. Through the present research, it has been discovered that the effects on entry mode choice of some of the traditional variables identified in the literature have changed as a result of the new technology, such as firm size and previous international experience. Therefore, the present research concludes that entry mode perspectives should consider the impact of Internet usage.

In examining the impact of Internet usage on firms' performance, research results showed that selling products and services online may help the web site obtain more sales but is not a significant contributor to the performance of a firm. By contrast, proactively using the Internet and getting ready for Internet business both do not

play a significant role in the achievement of a web site but they have significant positive effects on the performance of a firm.

## **1.2        STRUCTURE OF THE THESIS**

The structure of the thesis is arranged as follows, as Figure 1.1 shows.

The thesis starts with an introduction chapter (Chapter 1). In this chapter, the background to, the methodology of and the contributions of the present research are introduced.

An appraisal of the relevant literature is presented in Chapter 2. It starts with an introduction to the historical background in order to demonstrate that international trade and foreign direct investment (FDI) studies have built a solid foundation for the development of entry mode perspectives. Major contributions in the area are thoroughly discussed, alongside which are some main variables that have been identified. From the discussion, key arguments and certain propositions are derived, which form the basis of the present research instrument.

Since data was collected in Hong Kong, explanations are given in Chapter 3 regarding why Hong Kong was chosen as the research site. Chapter 4 provides justifications of why pilot case studies and a subsequent survey were adopted. Details were given to how variables were operationalised and how the survey was carried out.



**FIGURE 1.1 THE STRUCTURE OF THE THESIS**

<b>CHAPTER ONE INTRODUCTION</b> 1. Introduction 2. Structure of the Thesis 3. Background to the Research 4. The Research Methodology 5. Contributions of the Research	
<b>CHAPTER TWO THEORETICAL AND EMPIRICAL UNDERPINNINGS OF THE PRESENT RESEARCH</b> 1. Introduction 2. Historical Background – Studies of International Trade and FDI 3. Entry Mode Perspectives 4. Key Variables in Entry Mode Perspectives 5. Entry Mode and Performance 6. The Internet - A New Technology 7. The Adoption of the Internet 8. Propositions 9. The Impact of the Internet on Entry Mode Perspectives 10. Epistemology 11. Summary	
<b>CHAPTER THREE THE CONTEXT OF THE STUDY – HONG KONG</b> 1. Introduction 2. The Importance of Foreign Trade and FDI in Hong Kong 3. E-commerce Promoted in Hong Kong 4. Some Characteristics of Anglo-American Business Culture 5. Further In-depth Contextual Knowledge 6. Summary	
<b>CHAPTER FOUR METHODOLOGY AND OPERATIONALISATION OF VARIABLES</b> 1. Introduction 2. Research Methodology 3. Operationalisation of Variables 4. Sampling 5. Questionnaire Design 6. Questionnaire Administration 7. Summary	
<b>CHAPTER FIVE PILOT CASE STUDIES</b> 1. Introduction 2. Pilot Case Studies 3. Research Results 4. Discussion 5. Measures of Internet Usage 6. Summary	<b>CHAPTER SIX DATA ANALYSIS</b> 1. Introduction 2. Response Rate 3. Initial Analysis 4. Data Analysis 5. Summary
<b>CHAPTER SEVEN DISCUSSION</b> 1. Introduction 2. Internet Usage and Entry Mode Choice 3. Proposition Discussion 4. The Internet and Entry Mode Perspectives 5. The Achievement of a Web Site and the Performance of a Firm 6. Summary	<b>CHAPTER EIGHT CONCLUSION</b> 1. Introduction 2. Overviews and Contributions of the Research 3. Limitations of the Present Research 4. Future Research Directions

Why and how pilot case studies were conducted was discussed in detail in Chapter 5. Analyses of the survey data are presented in Chapter 6. They were performed at two stages. Some initial analyses were carried out at the first stage. Two types of regression models were adopted at a further stage. From the analyses, research questions were addressed.

Propositions were discussed in Chapter 7. The effects of Internet usage on entry mode choice were discussed in depth. Their effects on the performance of a firm are also explored in this chapter.

Chapter 8 concludes the thesis. Theoretical contributions and managerial implications are presented. At the same time, limitations of the present research are discussed and future research directions are provided.

### **1.3 BACKGROUND TO THE RESEARCH**

Firms can adopt different modes to enter a foreign market for business (Buckley and Casson 1976; Root 1987; Dunning 1988; Hill et al 1990; Agarwal and Ramaswami 1992; Shrader 2001). Entry modes range from exporting to licensing, from joint venturing to establishing wholly-owned subsidiaries. They differ from each other in several aspects. First, the resource requirements are different – exporting does not require resources invested in a foreign country, while joint ventures and wholly-owned subsidiaries both need equity investment. Secondly, different resource commitments offer firms different levels of control over these modes. Specifically,



an exporter has very little control over how the importer sells its products in a foreign market. A firm gains some degree of control over a joint venture by having some percentage of the ownership; and a firm has full control over a wholly-owned subsidiary since it has 100 percent ownership.

Since entry modes are so different, one research focus has been put on which mode is close to the optimal one for a particular foreign market (Buckley and Casson 1976; Reid 1986; Dunning 1988; Hill et al 1990; Agarwal and Ramaswami 1992; Brouthers 2002). These studies have employed different theoretical perspectives and methodological approaches. Specifically, internationalisation process theory emphasises the importance of knowledge and previous international experience in choosing entry modes. Organisational capabilities perspective focuses on a firm's internal resources and capabilities. Transaction cost analysis focuses on how to minimise cost in entry mode choice. Contingency theory posits that how firms enter a foreign market is contingent upon the environment and the existing resources and capabilities of a firm. The eclectic framework offers a more holistic view of a firm's entry mode, in which many factors that are studied in other perspectives are included.

Although these perspectives, focusing on different tenets and variables, provide some understanding of entry mode, one commonality has been discovered among them. None of them has, as yet, considered the impact of new communication technologies which have emerged since the 1980s and 1990s, such as the Internet.



The commercial use of the Internet has significantly affected the business world, and the proposition put forward by Boddewyn and Iyer (1999) is that the Internet has touched many disciplines such as economics, psychology, and sociology, whose concepts, models and variables form the bases of international business and entry mode studies. For example, the Internet is used to sell products and services online. Online consumer patterns have been found to be converging despite any socio-demographical differences (Bennett 1997). Therefore, it is argued that the relative influence of culture and economic development in the host market has been reduced. Owing to the new technology, many aspects of entry mode may be significantly influenced. For example, many firms upload firm and product information onto the web. The dissemination of information has enabled other firms to obtain as much data as possible about the industry and the market. Therefore, information asymmetry can be achieved (Dunning and Wymbs 2002), which is a prerequisite for low transaction cost. According to transaction cost analysis, non-collaboration modes may be favoured. However, what we have seen in recent years is that firms still prefer to collaborate. For example, K-Mart and Wal-Mart formed alliances on the Internet. It is therefore argued in the present research that entry mode theories should accommodate the impact of the Internet.

Although some research has been conducted into the impact of the Internet on a broader concept, international business (e.g. Cronin 1996; Kedia and Chokar, 1996; Quelch and Klein 1996; Bennett 1997; Hamill and Gregory 1997), they are myopic in many respects. First, they are based only on successful stories. These cases are

either large multinational corporations such as Dell, P&G, or large-sized forerunners in e-commerce such as Yahoo.com and Amazon.com, or e-commerce firms operating in the US. Little is known about small and medium-sized firms that operate outside the US or those that are not e-commerce firms, specifically traditional firms. Secondly, they compare firms that have adopted the Internet with those that have not. Prejudice can be seen in that the former type of firms has been assumed to outperform the latter. Such an approach over-emphasises the importance of the new technology. It is worthwhile examining how firms perform with the Internet being used in different ways. Therefore, a gap is identified to use the existing theoretical perspectives to examine the effects of differing Internet usage on foreign market entry mode choice and its impact on performance against firms of different sizes in a non-US market.

## **1.4 THE RESEARCH METHODOLOGY**

The present research investigates the impact of Internet usage on entry mode choice and the performance of a firm. Four types of Internet usage have been pinpointed in the literature, i.e. using it to disseminate product and firm information, to provide customer service, to collect information for market research and to sell products and services on line. In order to interrogate variations across firms, a quantitative approach was considered as the most appropriate one. A questionnaire was designed to collect information in a mail survey. However, since no studies have offered a comprehensive method as to how to measure Internet usage, some in-depth pilot case studies were conducted. This approach was adopted in the spirit of Creswell (1995) and many



others, who argue that a key use of qualitative data is to provide factors or variables for subsequent use in quantitative studies.

## **1.5 CONTRIBUTIONS OF THE RESEARCH**

The present research aims to contribute in three areas: theoretical, methodological and practical. Theoretically, the present research investigates to what extent Internet usage impacts upon entry mode choice and the performance of firms. Several perspectives are obviously in existence to study entry mode choice and they emphasise political, economic and social factors. However, none of them has speculated the impact of new communication technologies. The present research argues that the incorporation of the Internet may provide a more comprehensive model to study entry mode choice, since at the very least, international business is influenced by political, economic, social and technological factors. In the present research, the use of the Internet is considered as a key technological factor.

Measures of different uses of the Internet were constructed in the present research. These measures were derived from the limited existing literature on the Internet but they have not been extensively tested empirically. The chosen research design attempted to build a solid methodology. Four pilot case studies were carried out to isolate and identify the key factors and measures were validated before they were incorporated in a questionnaire, which was subsequently administered in a mail survey. Data analysis results gave some evidence of the high reliability of such

measures and therefore, they could be used as the basis of any future research in these areas.

The present research has also practical implications in two respects. The first implication is regarding the impact of differing Internet usage on entry mode choice. It was revealed that managers should make strategic decisions on equity modes despite the firm size and the duration of previous international experience. At the same time, using the Internet to sell products and services on line may be positive indicators for equity modes, but using what the new technology offers businesses keeps firms away from equity modes. The second practical implication is concerned with its impact on the performance of a firm. The present research showed having online payment facilities may contribute to the construction and use of a web site, but the cost of maintaining it may exceed its benefits. Getting ready for Internet business and use what the new technology offers businesses may not bring extra online sales but may improve the performance of a firm significantly.

# **CHAPTER TWO**

## **THEORETICAL AND EMPIRICAL UNDERPINNING OF THE RESEARCH**

### **2.1 INTRODUCTION**

The study of international business has been flourishing since the 1950s. Multiple perspectives and methodological approaches have been employed to explain international trade and foreign direct investment (FDI). As in other fields of business and management research, these perspectives and methodological approaches have been predominantly developed from the core disciplines of economics and sociology. This intellectual base has provided a theoretical robustness for the differing perspectives. The variety of methodological approaches has provided a relatively solid foundation for future studies of international business and multinational corporations.

As Terpstra and Sarathy (2000, p.361) argue, the choice of entry mode for a particular market is one of the most critical strategic decisions that a firm must make in international expansion. Wind and Perlmutter (1977) term this a ‘frontier issue’. There has been a great deal of effort dedicated to researching foreign market entry mode. Much of it is aimed at helping managers choose an entry mode as near optimal as possible.



Like much of social science inquiry, these theoretical perspectives have developed over time reflecting different emphases that have been placed on processes, knowledge acquisition and economics. Each has, in turn, produced varying degrees of empirical support to reinforce the theoretical perspective chosen. Unsurprisingly, debates still continue over which perspective offers the most comprehensive and analytical perspective on entry mode choice. Whilst discussed in detail in much of the literature on international business, this debate is not the main focus of this research. The present research focuses initially not on differences between these theoretical perspectives, but on one striking commonality – all are to-date silent on the impact of new communication technologies which emerged during the 1980s and 1990s. In particular, the use of the Internet as an important mode of international business communication, a distribution channel, a marketplace, and an advertising medium is largely overlooked. The present research therefore seeks to investigate whether different use of the Internet has influenced and shaped strategic decisions on foreign market entry modes, and if the answer is yes, what these influences are.

In this chapter, relevant literature for the present research is appraised. Specifically studies of international trade and FDI are reviewed as the historical background in order to introduce the study of foreign market entry mode (see Section 2.2). Various perspectives of entry mode are discussed subsequently (see Section 2.3), delineating which are the underlying tenets and criteria of each perspective, and how the present research can benefit from the existing literature (see Section 2.4). Section 2.5 reviews literature on entry mode choice and the performance of firms. Having established the

foundations of such approaches, this chapter then considers whether and to what extent different usage of the Internet directly impacts upon or might modify entry mode theories (see Section 2.6 and 2.7). The discussion gives rise to some research questions in Section 2.8. They form the basis of the present research. What the new technology might have impacted upon entry mode perspectives is addressed in Section 2.9. Epistemological justifications are discussed in Section 2.10.

## **2.2 HISTORICAL BACKGROUND – STUDIES OF INTERNATIONAL TRADE AND FDI**

In the book ‘The Theory of The Growth of The Firm’, Penrose (1959) asserted that ‘growth’ is used in ordinary discourse with two different connotations. It sometimes denotes a mere increase in amount, such as an increase in output, exports, sales etc. In other contexts, however, it is used to imply an increase in size or an improvement in quality as a result of a process of development. Penrose (1959) attempted to offer a theory to study the growth of firms. She postulates that while a firm may grow through diversification, mergers and acquisitions, it also grows over time. However, she could not foresee that firms in the following half-a-century would grow across their national borders via international business. The flourishing of international business has provided rich ground for academic research. Consequently, international business has become one of the most prolific research interests in the fields of business and management.



At an early stage, research tended to focus on why firms go to international markets (e.g. Heckscher 1949; Hymer 1960; Cyert and March 1963; Aharoni 1966; Vernon 1966; Kindleberger 1969). These studies provide diverse perspectives on why firms pursue international trade and foreign direct investment (FDI). For example, the theory of absolute advantage postulates that each country should specialise in the production and export of the commodity which it produces with the least labour. It lays foundations for the development of the theory of comparative advantage and the theory of factor proportions. The theory of comparative advantage postulates that a country needs to possess a comparative advantage in the production of one commodity, which it can then use to trade for others (Riccardo 1819). There are other theories that are developed from different viewpoints. The theory of factor proportions (Heckscher 1949) emphasises that a product is composed of two factors, labour and capital, and that these two factors compel international trade and FDI. The Hymer-Kindleberger theory focuses on any special abilities firms possess in order to compete in a foreign market. Product life cycle theory (Vernon 1966) explains why developed countries are sources of FDI and less developed and developing countries are recipients of FDI.

These theories mentioned above on international trade and FDI borrowed concepts, models and variables from economics, sociology and other well-developed disciplines. They have inspired the subsequent studies of the internationalisation of firms and entry mode, in particular. The following section will review some theories on international trade and FDI. The review is not exhaustive because the purpose is

to emphasise the key characteristics of their methodological approaches, upon which entry mode perspectives are built. It helps inform the present research of the historical background of entry mode studies.

### **2.2.1 The Theory of Absolute Advantage**

Adam Smith, 'the father of economics' (Czinkota et al 1996) published the book, *The Wealth of Nations* in 1776. He explains how markets and production operate in a society. He points out two fundamental elements in his theory: absolute advantage and the division of labour. Smith notes that production requires human labour, and different skills in different countries may lead to different levels of productivity. He terms this absolute advantage. He observed the production processes of the early stages of the Industrial Revolution in England and recognised that using workers with different skills at different stages of a process would increase productivity, compared to using the same people throughout the whole process. In his book, he terms this the division of labour.

Adam Smith's other contribution was to extend the concept of the division of labour in the production process to a division of labour and specialised products across countries (Czinkota et al 1996): if a country is specialised in producing a product, it should produce more of it and trade it for goods that are cheaper imported from abroad than produced at home. Smith's work was instrumental in the development of other economic theories, such as the theory of comparative advantage (Riccardo 1819) and the theory of factor proportions (Heckscher 1949).



However, the theory of absolute advantage does not answer certain questions on international trade. First, Smith's theory emphasises the absolute advantage a country has in production, but does not explain clearly what might cause such advantages. Secondly, if a country does not possess an absolute advantage in a given product, does that preclude the possibility of trade in that product with other countries? Thirdly, the theory does not explain why some countries import products from other countries for which they nonetheless possess an absolute advantage.

### **2.2.2 The Theory of Comparative Advantage**

On the basis of Adam Smith's work, David Riccardo (1819) examines international trade in depth. He notes that even if a country possesses an absolute advantage in the production of two products, compared with other countries, production of one must be relatively more efficient than another. This is what he terms comparative advantage. He argues that each country needs to possess comparative advantage in the production of one product, and needs to focus on producing this to trade for others.

Ricardo takes the logic of absolute advantages in production one step further to explain how countries could exploit their own advantages and gain from international trade (Czinkota et al 1996). However, Ricardo's comparative advantage theory does not explain why some countries export one product, for which they have a comparative advantage, yet import it at the same time. For example, compared to the production of hi-tech products in the United States, China

has a comparative advantage in producing textiles. However, China still imports textiles from the United States and at the same time exports hi-tech products to the United States. In 2002, for example, China's export volume of textiles and apparel to the United States amounted to US\$62.68 billion and the import volume of textiles and apparel from the United States was worth of US\$447 million.

### **2.2.3 The Theory of Factor Proportions – Heckscher-Ohlin Theorem**

Since Adam Smith highlights only one factor in production, labour, Heckscher (1949) and his student, Ohlin, argue that production consists of a second factor, capital. Different products require different proportions of labour and capital (Heckscher 1949). The theory assumes that labour and capital do not move across national borders. Therefore, a country's endowment determines the relative costs of labour and capital as compared to other countries. According to the theory of factor proportions, a country that is relatively labour-abundant should specialise in the production of labour-intensive goods, and exporting labour-intensive goods can provide the opportunity for exchange of capital-intensive goods from countries that are relatively capital-abundant.

It should be noted that the assumption that the same production technology would be used for the same goods in all countries contradicts the classical viewpoint, in which technology or the productivity of labour varies from country to country. Although the theory of factor proportions is not the first model to explain international trade, it is perhaps the first to stress that capital is as important as labour in production, and



that both factors are drivers of international trade. The two factors inspire the development of other theories on international trade and FDI, such as Hymer-Kindleberger's theory on monopolistic advantage of a firm.

Nevertheless, the theory of factor proportions has some limitations. First, it assumes that labour and capital do not move from one country to another. However, the empirical evidence shows that both labour and capital are transferable. For example, when Hong Kong became a British colony in 1842 and was declared as a free entrepôt, numerous goods and capital were transported there from all over the world, and many Chinese people moved to the region. All these factors provided good conditions to develop Hong Kong as an export-oriented economy. Secondly, the theory of factor proportions does not explain why some countries, although possessing more capital than labour, still develop their own labour-intensive industries.

#### **2.2.4 The Hymer-Kindleberger Theory (The Theory of Monopolistic Advantage)**

The Hymer-Kindleberger theory is derived from Hymer's (1960) PhD thesis. Its focus is on how foreign-owned firms are able to compete with indigenous ones in a foreign market, who possess local knowledge and have long-term relationships with local customers. It has been found that they have firm-specific advantage. Different studies have shown different views on how such an advantage is generated. Kindleberger (1969) posits that firms possess monopolistic advantage because they



have superior marketing skills, management techniques, or a patent advantage. Caves (1971) points out that such an advantage comes from firms' ability to differentiate their products. Hirsch (1976) argue that the possession of research and development abilities may give firms monopolistic advantages.

The Hymer-Kindleberger theory inspires some entry mode studies, such as organisational capabilities perspectives and the eclectic framework. The essence of them is on how firms enter foreign markets when they possess such an advantage.

Nevertheless, Buckley and Casson (1976) argue there are some limitations to the theory. First, the theory assumes that firms will be able to exploit advantages they possess. It does not explain why some firms invest in foreign countries if they have few exploitable advantages. Secondly, the theory does not explain why some firms, although possessing a monopolistic advantage, fail in some foreign countries. For example, the French automobile manufacturer, Peugeot, had been very successful in making and selling cars in many countries before it launched its joint venture in China in 1993. However, its monopolistic advantage derived from the advanced automobile manufacturing technology did not help operations in China. A withdrawal from China was declared in 1996.

#### **2.2.5 Vernon's Product Life Cycle Theory**

Vernon (1966) has proposed a Product Life Cycle Theory to explain shifts in international trade and FDI. He argues that when a product is initially designed and

manufactured in the US, the US tends to be the only country where it is produced and consumed. In other developed countries, consumers can access the product through importing but they have to pay a higher price than in the US when the product is still in its new product stage. In time, the product moves from the new product stage to the maturity stage in the US. At this stage, other developed countries that imported the product at an earlier stage might commence their own production as the basic technology of the product becomes more widely known. Once their home markets are sufficiently supplied, these developed countries start to export the product to countries that are less developed. In the third and final stage of production, the product becomes standardised and less developed countries start to produce it. Owing to cheap labour costs and mass production in less developed countries, the product is generally made at a low cost. Other developed countries and the US are then likely to import the standardised product rather than produce it in their home countries.

The significant contribution of Vernon's Product Life Cycle Theory lies in its use of a product life cycle to explain the trend of international trade and FDI. It differs from the conventional approach, which focuses on a specific country. This made it important to match the product, by its maturity stage with its production location, in order to examine its competitiveness (Czinkota et al 1996). It inspires subsequent studies on entry mode choice, in which location is an important factor (Dunning 1988; Chen and Chen 2002).



One of the theory's limitations is that it views the product life cycle as the factor explaining international trade and FDI. It does not explain, for example, why some firms in developed countries transfer some technologies to developing countries when they are still in the growth stage (De Mello 1997).

#### **2.2.6 FDI as a Result of Exploitation of Imperfections in a Foreign Country**

When firms export products to certain countries, the local government may create trade barriers (imperfections), such as tariffs and quotas, tax policies and incentives, preferential arrangements established by the government itself, and financial restrictions on the access of foreign firms to domestic capital markets, as identified in Hymer (1960), Kindleberger (1969), and Caves (1971). In order to maintain their access, foreign firms establish their own production units in those countries so that production is carried out and sold, locally. Such direct investment effectively bypasses the restrictions (Czinkota et al 1996).

The Theory of the Exploitation of Imperfections is sufficiently powerful to explain why some firms set up their production units in countries where labour and resources may not be cheaply obtained a phenomenon, which the theory of factor proportions does not explain (Brewer 1993).

However, there are some limitations. For example, empirical evidence has shown that if a government imposes restrictions on imports, it is likely to regulate FDI

activities (Horsley 2001). The theory does not explain why firms commit resources in those countries. Nevertheless, it inspires subsequent research to examine entry mode from the perspective of local demand, and the government's attitudes towards FDI in the host countries (Stopford and Wells 1972; Rugman 1979; Young 2001).

### **2.2.7 Krugman's New Trade Theory**

Krugman's theoretical developments focus on the cost of production and how cost and price drive international business. Krugman borrows from microeconomics and market structure analysis the concept of economies of scale. He points out that the cost per unit of output depends on the size of a firm. The larger the firm, the greater the scale benefits, and the lower the cost per unit. This is what Krugman defines as internal economies of scale (Helpman and Krugman 1985). A firm possessing internal economies of scale could potentially monopolise an industry. The benefit thus allows the firm to set the market price so that more profits can be achieved. If production in a foreign country can increase internal economies of scale, a firm is likely to move its production to or establish one in that country.

Krugman also argues that firms may or may not pursue international business due to external economies of scale, which refers to the cost per unit of output depending on the size of an industry. If a country has an industry in which many small firms produce a product at a low price, lower than in many other countries, foreign firms do not need to go to that country. Krugman's theory on external economies of scale



explains why all industries do not necessarily move to a country with lower cost in energy, resources and labour.

Although Krugman's theory inspires the development of subsequent perspectives on entry mode, such as organisational capabilities perspective, it overestimates the importance of firm size (Czinkota et al 1996). Literature on FDI of small and medium-sized firms (e.g. Oviatt and McDougal 1994; Chetty and Campbell-Hunt 2003) indicates that Krugman's theory does not consider factors such as organisational learning and the different markets that SMEs may target.

#### **2.2.8 Finance-oriented Theories**

It should be noted that some scholars view international trade and FDI from the perspective of finance. Aliber (1970 1993) is among them. He argues that international business involves exchange risk capital and market relationships. In the first instance, the reason why firms establish their production units in a foreign country is to avoid the weak purchasing power of local currency in international trade, caused by depreciation. Secondly, firms that invest in foreign countries normally come from countries with low interest rates. The difference in the average prices of corporate equities of firms headquartered in various countries systematically reflects that the long-term interest rates on securities denominated in the currencies of some countries are lower than the rates on comparable securities denominated in the currencies of other countries. In effect, these national differences

in interest rates and in the prices of corporate equities mean that there are country-specific costs of capital to firms.

Aliber's finance-oriented theory can explain why some firms do not always establish their production units in countries with lower resource costs. Its perspective on international trade and FDI is purely financial, which might have inspired subsequent studies on entry mode, such as transaction cost analysis, whose perspective is purely economic.

## **2.3 Entry Mode Perspectives**

Throughout the 1970s, literature on international business continued to grow, the focus being not only on international trade and FDI but also on more detailed issues, such as entry mode.

The entry strategies that a firm can choose include exporting, licensing, franchising, joint venture, wholly-owned subsidiary, mergers and acquisitions (Root 1987 1990). They differ from each other in many respects and therefore require separate consideration when a decision is being made. For example, Hill et al (1990) and Bruning et al (1997) assert that licensing, joint venture and wholly owned subsidiary require different levels of resource commitment and control, and incur different levels of dissemination risk. In their opinion, licensing, joint venture and wholly owned subsidiary requires low, medium and high level of resource commitment



respectively; leads to low, medium and high level of control respectively; and incurs high, medium and low level of dissemination risk respectively.

Studies of entry mode choice inherently employ broad perspectives, as do previous studies into international trade and FDI, from organisational capability exploitation to organisational learning, from cost minimisation to return maximisation. In the present research, five perspectives are reviewed, namely, internationalisation process theory, transaction cost analysis, organisational capabilities perspective, contingency theory and the eclectic framework.

The reasons for these five perspectives are four-fold. First, in some review papers, such as Andersen (1997) and Bell and Young (1998), internationalisation process theory, transaction cost analysis, organisational capabilities perspective, contingency theory and the eclectic framework are considered to be the most important contributions to the study of foreign market entry mode. Secondly, these five perspectives have been used to study foreign market entry mode in a large number of papers that are published in books and some leading journals (e.g. Stopford and Wells 1972; Buckley and Casson 1976; Anderson and Coughlan 1987; Agarwal and Ramaswami 1992; Calof and Beamish 1995; Brouthers et al 1999). Thirdly, it should be noted that the network theory is important in studying firms' entry mode choice. The reason why it was excluded in the present study is that the Internet has networked all firms that use it (Hamill 1997). This would provide no variations to investigate how firms choose entry mode with the Internet. Although firms may



form different networks for the conduct of business online, that would be out of the scope of the present research. Fourthly, the purpose of reviewing these perspectives is to develop the present research instrument, not to present an exhaustive list – indeed, it would be impracticable to do so (Andersen 1997). These five perspectives will be discussed in the following.

### **2.3.1 Internationalisation Process Theory**

Internationalisation process theory, also known as the stages theory, was based on the study of some Swedish firms (Johanson and Wiedersheim-Paul 1975), a case study of Pharmacia (cited in Johanson and Vahlne 1977) and an Australian investigation which treated domestic expansion as analogous to export expansion (Wiedersheim-Paul, Olson and Welch 1978). There are two models in internationalisation process theory (Andersen 1993), the Uppsala internationalisation model (U-model) and the innovation-related model (I-model). The U-model focuses on different means of international operations at different periods of time that firms tend to adopt. Firms were discovered to be involved in international business at different levels, from doing some irregular export activities as an indication of internationalisation to opening up its own manufacturing units as a result of internationalisation. This model inspires the birth of the I-model. The I-model focuses on the learning of firms. With little knowledge about a particular foreign market, firms do not tend to commit resources in a foreign market. However, if firms are willing to learn and innovate, they can easily be fully involved in international business.

### **2.3.1.1      *The Uppsala Internationalisation Model (the U-model)***

The U-model focuses on different international operation modes that firms tend to adopt at different stages in their internationalisation process. These different modes are a stepwise extension of international operations, including the following four stages (Johanson and Vahlne 1977): 1) no regular export activities; 2) export via independent representatives (agents); 3) establishment of overseas sales subsidiaries; and 4) overseas production and manufacturing units.

It is hypothesised that when a firm has very little knowledge about foreign markets, considerable uncertainty is perceived in its resource commitment. Consequently, firms tend to shy away from those modes that require significant resource commitment and considerable control. Modes such as exporting through representatives/agents tend to be preferred. However, in time, firms may obtain more knowledge by hiring personnel with relevant knowledge or by operating in other foreign countries. By then, the firm can be more confident in committing resources in its international business. Bolder decisions can be made to opt for those modes that require higher levels of resources and control, such as joint venture or wholly-owned subsidiaries.

The underlying assumptions of the U-model of internationalisation process theory are as follows:

First of all, a firm develops in the domestic market before initiating international activities (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977). It is



always the case that a firm, particularly manufacturing firms, is likely to establish the necessary facilities and workforce to satisfy domestic customers before seeking any international expansion (Bell and Young 1998).

Secondly, firms are reluctant to initiate exports (Wiedersheim-Paul, Olson and Welch 1978). This also comes from US-based empirical studies (see Bilkey 1978; Cavusgil 1980), wherein firms are described as export adverse and reactive rather than being proactive when seeking export opportunities.

Thirdly, firms start doing international business by exporting to psychologically 'close' countries (Hornell, Vahlne and Wiedersheim-Paul 1973; Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977, 1992; Johanson 1990). For example, the Swedish firms started exporting within Scandinavia simply because the Scandinavian countries share a greater number of similarities in culture, and consequently in business culture and consumer behaviour (Johanson and Vahlne 1977).

Finally, the internationalisation of a firm is the consequence of a series of incremental decisions based on how much knowledge it has about foreign markets and operations (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977; Johanson 1990), and how much international experience it has already gained.



The U-model further develops theories concerning the growth of firms (Penrose 1959; Cyert and March 1963; Pfeffer 1981). It pinpoints the importance of knowledge and experience in firms' international expansion and the different demands at various stages on firms' resources, knowledge and experience.

Some empirical studies have been conducted in the light of the U-model and have shown supportive results, such as Hook and Czinkota's (1988) study of Hawaiian export firms, Johansson and Nonaka's (1987) study of Japanese firms' export strategies, Karafakioglu's (1986) study of Turkish exporters, Barrett's (1986) study of Australian firms and Dichtl and Koglmayr's (1986) extensive export research in Mannheim. So did Davidson (1980, 1983) and Denis and Depelteau (1985) in their study about market selections of US firms going abroad and Ford et al's (1987) study on firm in less developed countries.

However, it suffers several limitations. First, the model can only contribute at the early stage of internationalisation, when the main focus of a firm is to develop the domestic market, and when foreign market knowledge and foreign market resources are still constraining factors (Forsgren 1989). Forsgren (1989) argues that when a firm is already active in several countries, the factors identified in the U-model are no longer crucial. Therefore, Bell and Young (1998) posit that the U-model has less relevance to the established multinational corporation.

Secondly, the U-model is too deterministic and too linear (Reid 1981; Turnbull 1987; Rosson 1987). Empirically, firms can be found which enter international markets without following the four stages strictly (Reid 1983). Particularly, small-sized firms are likely to go through a more incremental process (Lau 1992; Bodur and Madsen 1993; Oviatt and McDougal 1994). At another level, Bell and Young (1998) argue that the U-model examines organic evolution of firms. It cannot explain that 70% foreign direct investment in developed countries in the years of 1986-1990 was realised in cross-border mergers, acquisitions and alliances (UNCTAD, 1994).

Thirdly, the U-model focuses more on manufacturers. Research results on service firms indicate that they are unlikely to be governed by cultural distance (Engwall and Wallenstal 1988), and thus they may not follow the prescribed stages of internationalisation.

#### **2.3.1.2      *The Innovation-related Internationalisation Model (I-model)***

The I-model was derived from Rogers' stages of the adoption process, also named as the diffusion theory (Rogers 1962), focusing on the learning sequence in connection with the adoption of an innovation. Such a development is referred to as a 'learning curve' (Bilkey and Tesar 1977), which is influenced by external 'attention-evoking' stimuli – for example, unsolicited orders or enquiries – and/or internal factors, such as managerial ambitions or excess capacity (Cavusgil 1980; Czinkota 1982).



Although the I-model is more focused on the learning and innovation side of a firm, it also proposes a 'stages' approach, as the U-model. The only difference is that the stages that the I-model proposes are more incremental than the U-model. There is a great deal of famous work explaining the internationalisation process from an innovation-related perspective, such as Bilkey and Tesar (1977), Bilkey (1978), Cavusgil's (1980, 1984), Andersen (1993), and Barkema et al (1996). Their studies about export describe the same pattern (see Figure 2.1), although the number of stages varies.

The I-model can explain some activities that the U-model does not. First, the U-model cannot explain why lots of foreign direct investment takes the form of mergers, acquisitions and alliances (Bell and Young 1998). According to the I-model, however, these modes provide firms excellent opportunities to learn and innovate (Bilkey and Tesar 1977; Cavusgil 1980, 1984). Therefore, firms are more likely to merge, acquire and form strategic alliances with other firms even when they are at an early stage of internationalisation.

Secondly, the U-model assumes that firms start exporting to 'psychically close' countries (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977; Johanson 1990) so that experience gained in one market can be used in another similar one. It cannot explain why some firms gravitate towards markets with great opportunities and great psychic distance (Bell and Young 1998). However, the I-



model provides the answer that these markets provide great potential and therefore great opportunities to firms to learn and innovate (Bilkey 1978).

Thirdly, the U-model ignores the interdependencies between operations in different markets (Bell and Young 1998). The I-model, by contrast, suggests that these operations are inter-dependent and the stem firm may learn from its foreign operation and vice versa. As a result, the foreign operation may invest on behalf of the stem firm in another country in a mode that is in a further stage in the internationalisation process (Birkinshaw and Morrison 1995).

However, the I-model shares some common limitations with the U-model, as discussed in 2.3.1.1. Many organisation innovation studies show that organisational learning depends upon many other elements. Capello (1999) argue that the type of innovation for development and firm size determine organisational learning. If the type of innovation cannot influence the process of organisational learning, it is likely that firms will follow the U-model (Andersen 1993). Similarly, if small firms cannot learn sufficient knowledge about foreign markets within a short period of time, they are likely to follow the successive stages prescribed by the U-model (Barkema et al 1996). Dosi (1988) argues that the innovative process is also affected by market opportunities and conditions, and the pattern of consumer demand. It implies that although firms may have the right type of innovation and the right size, they may encounter slow learning process owing to a poor market condition and lack of the right pattern of consumer demand. If firms cannot accelerate the learning process, its



internationalisation might well be slowed down, and follow the stages in the U-model.

Figure 2.1 compares the U-model and the I-model of internationalisation process theory in some key literature.

**FIGURE 2.1 THE U- AND I-MODELS OF INTERNATIONALISATION PROCESS THEORY**

Johanson and Vahlne (1977)	Bilkey and Tesar (1977)	Cavusgil (1980)	Reid (1981)	Czinkota (1982)
Stage 1 Irregular exporting	Stage 1 Not interested in exporting	Stage 1 Domestic marketing only	Stage 1 Export awareness	Stage 1 The completely uninterested firm
Stage 2 Exporting via agent	Stage 2 Willing to fill orders, but no proactive effort	Stage 2 Searches for information for exporting	Stage 2 Export intention	Stage 2 The partially interested firm
Stage 3 Sales subsidiary	Stage 3 Explores the feasibility of active exporting	Stage 3 Experimental involvement	Stage 3 Export trial: personal experience from limited exporting	Stage 3 The exploring firm
Stage 4 Overseas production units	Stage 4 Experimental exporting	Stage 4 Active involvement	Stage 4 Exporting involvement	Stage 4 Experimental exporting
	Stage 5 Experienced exporter	Stage 5 Committed involvement	Stage 5 Export acceptance	Stage 5 The experienced small exporter
	Stage 6 Explores exporting			Stage 6 The experienced large exporter

Source: As cited in Ford and Leonidou (1991) and Bell and Young (1998)



### **2.3.2 Transaction Cost Analysis (Internalisation Perspective)**

Transaction cost analysis first appeared in economics in the 1970s (Williamson 1971). Its central theme is that of economising costs and maximising profits when transactions are made (Williamson 1971). According to transaction cost analysis, any given business task can be contracted out to external agents, partners, or suppliers (market-contracting) or it can be internalised and performed by the firms' own departments and teams (integration) – that is why internalisation perspective is considered to be rooted in transaction cost analysis (e.g. Andersen 1993). If markets are competitive, market pressures drive external parties 'to perform effectively at low cost and to deal with each other in fairness, honesty and good faith' (Anderson and Gatignon 1986, p.8). Thus, it minimises the need for monitoring and enforcing out-contracts (Hennart 1988). Under these conditions, market-contracting arrangements are favoured because the threat of replacement reduces opportunism and contractors are forced to perform efficiently (Anderson and Coughlan 1987; Anderson and Gatignon 1986).

However, it has been discovered that markets are often imperfect, which produces the incentive to internalise (Buckley and Casson 1976). Klein et al (1990) argue that the higher costs of contracting externally are the greater is the incentive to internalise transactions. However, making a decision on whether to integrate and assume control is not easy. This is because every transaction is influenced and complicated by what specific assets are involved, the frequency of economic exchange and the uncertainty



surrounding the trade of resources between buyer and sellers (Williamson 1971, 1981, 1985).

Research proposes transaction cost analysis as a means of studying entry modes to overcome a limitation of internationalisation process theory. Both the U- and I-models could not explain why, with the same amount of knowledge, some firms choose hybrid modes (collaboration), such as inter-firm co-operation and vertical co-ordination, while others choose non-hybrid modes (non-collaboration) (Anderson and Gatignon 1986; Anderson and Coughlan 1987; Gatignon and Anderson 1988; Klein et al 1990; Andersen 1997; Bell and Young 1998).

Foreign markets tend to be imperfect, owing to insufficient information available for entering firms (Williamson 1985; Taylor et al 1998), a restricted range of available suppliers and partners (Erramilli and Rao 1993), or difficulties of estimating and including all contingencies in agreements (Williamson 1985). These are commonly known as ‘information asymmetry’, ‘bounded rationality’ and ‘asset specificity’. Specifically,

- ‘Information asymmetry is predicated on the fact that one of the parties in any transaction lacks information relative to the other.
- Bounded rationality deals with a human inability to process all information in making a decision.

- Asset specificity pertains to having to commit a large sum of capital to produce a specialised product.' ( Dunning and Wymbs: p.285-286)

Buckley and Casson (1976) argue that in such circumstances firms can significantly reduce transaction costs by replacing external agents, partners or suppliers with the internal workforce simply because their behaviour can be monitored and controlled more effectively (Hennart 1988; Klein 1989). This is known as 'internalisation'.

However, establishment of an internalised operation entails significant organisation and bureaucratic costs (Davidson and McFetridge 1985). The high costs are thought to diminish the firm's ability to dissolve one type of institutional arrangement and move to another (Erramilli and Rao 1993). Anderson and Gatignon (1986) claim that choosing entry modes is a trade-off between control (benefit of internalisation) and resource commitments (cost of internalisation).

Transaction cost analysis is concerned with the cost of integrating an operation within the firm as compared with the cost of using an external party to act for the firm in a foreign market, which is termed in Williamson (1970 1985) as transaction cost. The particular governance structure that is actually utilised in a given situation depends on the comparative transaction costs, such as the costs of running a system, including the *ex ante* costs of negotiating a contract, and the *ex post* costs of monitoring the performance and enforcing all parties to adhere to the contract (Williamson 1985). The *ex ante* and *ex post* issues have thus become measurements in some transaction



cost studies (Gatignon and Anderson 1988; Hennart 1991; Agarwal and Ramaswami 1992; Erramilli and Rao 1993; Makino and Neupert 2000). The positive relationship between transaction cost and high control entry mode predicted by transaction cost analysis is contingent upon other moderating factors, such as external uncertainty (Anderson and Gatignon 1986; Kogut and Singh 1988; Erramilli and Rao 1993), internal uncertainty (Anderson and Gatignon 1986) and firm size (Erramilli and Rao 1993).

It must be pointed out that most of the studies on market entry mode have made modifications of transaction cost analysis (Dunning 1988; Erramilli and Rao 1993; Andersen 1997). Sometimes non-transaction cost benefits are included, which derive from an increased control of integration (such as co-ordination of strategies in multinational corporations) (Kobrin 1988; Hill et al 1990), and which extend market power (Teece 1981), or help to obtain a large share of profit (Anderson and Gatignon 1986). Modified transaction cost analysis predicts a positive relationship between transaction costs and the propensity for high control modes (Klein et al 1990). Nevertheless, the extension of transaction cost analysis has enriched our knowledge of a firm's entry mode (Andersen 1997). Unlike internationalisation process theory, transaction cost analysis is considered superior in explaining diversity and variations in internationalisation behaviour (Reid 1983). It is especially effective in explaining vertical integration decisions (Andersen 1997) in manufacturing firms (Agarwal and Ramaswami 1992) as well as in service firms (Erramilli and Rao 1993).



However, transaction cost analysis has been criticised for not distinguishing well enough between the different degrees of partnership (Gatignon and Anderson 1988). In addition, the use of decision criteria other than transaction cost reduction - such as the benefits or values (Madhok 1997) - could lead to different conclusions concerning choice of foreign market entry mode. Other criticisms include a methodological issue about the measurement of transaction costs raised in Andersen (1997) and Dunning (1995). They both pointed out that transaction costs cannot be accurately calculated before the international operation has been established. Therefore, operationalisation of transaction cost may be a problem (Buckley 1989).

### **2.3.3 Organisational Capabilities Perspective**

Some of the earliest work on foreign market entry mode are rooted in organisational capabilities perspective (Madhok 1997), such as Carlson (1966) and Aharoni (1966). Madhok (1997) regards Carlson as the first one to introduce the notion of a firm as a bundle of tangible and intangible resources required for international business.

The reason why organisational capabilities perspective is introduced is that, according to Madhok (1997), research into entry mode has been predominantly from the internalisation perspective, which is closely related to transaction cost analysis. They are both concerned with the minimisation of transaction cost and the conditions underlying market failure. Madhok (1997) pinpoints the attention in the literature is increasing onto the notion of firms competing primarily on the basis of capabilities, and the corresponding notion of the development of a firm's capabilities

(Kogut 1989). These capabilities can be generated from resources a firm has through dynamic and interactive firm-specific processes (Amit and Shoemaker 1993), where individual skills, organisation and technology are inextricably woven together (Nelson and Winter 1982). Therefore, Madhok (1997) argues that capabilities encompass resources and infuse them with sustainable value.

In this perspective, 'capability accumulation is a dynamic process where the information management attributes of the firm, i.e. the firm's ability to acquire, evaluate, assimilate, integrate, diffuse, deploy and exploit knowledge, is crucial' (Madhok 1997 p.42). The process is closely dependent on the relatedness of new flows of knowledge through current strategies to the existing stock of knowledge, which is related to the U-model of internationalisation process theory. Therefore, the historical dimension of a firm's activities is also considered critical in this perspective, since its past experiences engender the underlying routines on the basis of which it undertakes subsequent actions.

Madhok (1997) proposed that firms will choose equity modes, 'ownership mode' in other words (p.43) if such a choice provides opportunities for both development and deployment of a firm's capabilities. He further compares choices of different modes and concludes that 1) firms choose wholly-owned subsidiary due to 'stickiness of know-how and path dependence' (p.43); 2) firms choose licensing because they do not involve adequate interaction for significant exposure to and ingestion of information (Vernon and Wells 1986); 3) firms choose joint venture to enhance



firms' capabilities when development of all the necessary know-how is viewed as being too slow a process while licensing is inadequate in terms of the more tacit aspect of the know-how (Killing 1984).

Madhok (1997) asserted that in the exploitation of an existing advantage, where the potential for erosion in the value of a firm's capability that due to the ownership effect is greater than due to the locational effect, there will be a preference for internalisation. Firms may prefer collaboration when a good opportunity to develop their capabilities is perceived.

The difference between transaction cost analysis and organisational capabilities perspective are two-fold. First, transaction cost analysis focuses solely on the market failure, while organisational capabilities perspective looks at the limits to firms' capabilities, and hierarchical failure. Secondly, transaction cost analysis focuses only on exploitation of firm advantage (the result is to internalise), while organisational capabilities perspective also looks at the benefit of doing so.

Whilst Dunning's Eclectic Framework (1988) asserted that a particular foreign location could provide some advantages, organisational capabilities perspective treats the locational effect as one of the difficulties a firm faces in exploiting its capabilities. While internationalisation process theory emphasises developing capabilities by learning, organisational capabilities perspective treats the exploitation

of the capabilities is a complementary issue to developing them. This is where organisational capabilities perspective stands out.

Organisational capabilities perspective can explain that firms prefer sole ownership when they possess some types of capabilities, while in other situations they prefer collaboration if they see a chance to learn. However, its explanatory power is limited. First, it cannot explain ‘why joint ventures die or are reconfigured before they outlive their usefulness’ (Harrigan, 1986). If collaborations are for organisational learning and capabilities development, why such benefits do not last long? A good example is the joint venture established by Peugeot and a Chinese factory. A withdrawal strategy was declared a few years after the launch of the venture. Secondly, some firms would prefer choose wholly-owned subsidiary although joint venture is a better solution for them.

#### **2.3.4 Contingency Theory**

Internationalisation process theory, transaction cost analysis and organisational capabilities perspective all suggest that there is a need to consider a range of determining factors that influence foreign market entry mode choice (Bell and Young 1998). However, these perspectives focus on the content of international business such as market knowledge, transaction cost and firms’ capabilities. The context is often overlooked. The context of international business has long been described as being ‘uncontrollable’ or ‘given’. Some scholars, such as Stopford and Wells (1972), have discovered that the same firm may choose different entry strategies in different foreign



markets. This reflects the theory of factor proportion (Heckscher 1949) which posits that different countries boast different advantages. These country-specific factors together with industry-specific factors constitute the context of entry mode choice (Ekeledo and Sivakumar 1998). Hence, contingency theory emerged from the study of foreign market entry mode.

Contingency theory postulates that the selection of entry mode must conform to the particular industry-, firm- and country-specific factors faced by the entering firm (Stopford and Wells 1972). External environmental factors include the cultural and social environment, the political and legal environment, and the economic environment (Ekeledo and Sivakumar 1998). Cultural and social factors have long been recognised by contingency theory (e.g. Agarwal 1994). Agarwal (1994) argued that firms may choose joint ventures in markets that are socially and culturally distant, or ‘psychically distant’ (Johanson and Vahlne 1997), because joint ventures provide entering firms access to local knowledge of markets and operations. Political and legal factors have been studied and are commonly referred as country risk (Anderson and Gatignon 1986). What foreign investors are concerned is related to the host government’s attitude towards them, as well as towards private property and contracts (Eaton et al 1986; Young 2001). If the host government’s attitudes were to change, investment conditions would change accordingly. Therefore, when considering committing resources in a foreign country, firms always examine the country risk, or ‘investment risk’ in some studies such as Agarwal and Ramaswami (1992), Brouthers

(2002), Nakos and Brouthers (2002). If the risk is too high, firms will prefer to enter a foreign market through a mode by which resources are not committed.

Unlike many internal factors, these environmental factors cannot be controlled by a firm (Biggadike 1981). Although they are usually fixed in the short term, they may not be easy to control in the long term (Hambrick and Lei 1985). Variables concerning the environment can be used to explain a firm's choice of entry mode, particularly why changes in one or more factors may cause variation in entry mode choice. For example, Calof and Beamish (1995) found that 38 MNEs generated 121 mode changes between 1980 and 1990, as a result of managerial response to the changing environment. Yeoh and Jeong (1995) investigated the exporting behaviour of SMEs and argued that while the environment is conventionally perceived as being an obstacle to exporting, it may in fact present opportunities for firms to do exporting or other international business.

Contingency theory highlights the importance of the idiosyncrasy of the factors influencing a firm's entry mode choice, and the context as well as the content of entry mode. Ideally, it can be used to study those firms whose foreign market modes have altered due to change in the environment or in their internal capabilities. The theory can also solve some of the problems raised by 'the lack of conceptual framework, hampering theory development and empirical operationalisation in the exporting field' (Reid 1981, p.107). In comparison with internationalisation process theory and transaction cost analysis, the contingency model offers a more dynamic perspective on



entry mode, in which ‘structural or contextual characteristics define the boundaries within which managerial responses are made... and where commitment decisions are primarily dependent on firm-specific factors’ (Reid 1981). It suggests that the whole process of internationalisation is much more complex and less structured than earlier perspectives may have implied (Bell and Young 1998). It offers a conceptual model that synthesises and integrates different approaches, and this explains the recent resurgence of interest in the model (Bell and Young 1998). Nevertheless, contingency theory suffers some limitations. For example, some authors (e.g. Bell and Young 1998) argue that contingency theory cannot offer a full explanation of the internationalisation process.

### **2.3.5 The Eclectic Framework**

Internationalisation process theory, transaction cost analysis, organisational capabilities perspective and contingency theory come closer to the reality that firms must make a decision based on choosing the optimal entry mode for their international expansion. The eclectic framework was an attempt by researchers to offer a holistic framework to help identify and evaluate the significance of the influencing factors in international expansion, particularly by means of foreign production (Dunning 1988). The eclectic framework postulates that ‘the extent, form, and pattern of international production is determined by the configuration of three sets of advantages as perceived by enterprises’ (Dunning 1988, p.2), namely, those associated with ownership, location and internalisation.

Ownership advantages lie in a firm's resources and capabilities. Foreign firms, in order to compete with those in the host country, must possess certain advantages specific to the nature and/or nationality of their ownership (Anderson and Coughlan 1987; Kogut 1989; Agarwal and Ramaswami 1992; Brouthers et al 1999). These advantages are called ownership advantages, sometimes 'competitive or monopolistic advantages' (Dunning 1988, p.2). These advantages must be sufficient to compensate for the costs of setting up and running a foreign operation, as well as costs incurred due to indigenous products and/or potential competitors, both at home and abroad (Dunning 1977). Dunning (1977) identified three types of ownership advantages:

- those that stem from the exclusive privileged possession of or access to particular income generating assets;
- those that are normally enjoyed by a branch plant compared with a *de novo* firm;
- those that are a consequence of geographical diversification or multi-nationality per se.

Locational advantages reflect how attractive a specific foreign market is (Andersen 1997). Where to set up a foreign operation is of critical importance because different markets offer different opportunities, which lead to different returns on investment. Firms are very likely to engage in foreign production whenever they perceive it to be in their best interests to combine spatially-transferable intermediate products



(Dunning, 1977, 1988). However, as pointed out by Dunning (1988), the choice of location may be prompted by market failure. For example, the imposition of trade barriers historically led to a lot of foreign manufacturing investment by MNEs. A reduction in transportation costs and the formation of customs unions or regional trading blocs has prompted greater regional specialisation of production by MNEs (Dunning 1988; Dunning and Robson 1987).

The third set of advantages recognised in the eclectic framework is concerned with transaction cost, as discussed in transaction cost analysis and the internalisation perspective. The cost of transactional market failure is perceived as high by MNEs. Consequently, MNEs are more likely to exploit their competitive advantages through international production rather than by contractual agreements with other firms. By so doing, firms can 'safeguard supplies of essential inputs, to ensure the quality of end products, to guarantee markets, to protect property rights, and to allow price discrimination, etc.' (Dunning 1988, p.2). Dunning (1988) proposed some modifications to transaction cost analysis. He argued that if the administrative costs of hierarchies were high, a firm would be more likely to favour contractual agreements with other firms (Dunning 1988).

On the basis of Dunning's work, there has been a great deal of interest in developing the eclectic framework (Caves 1982; Davidson and McFetridge 1985; Dunning and Robson 1987; Dunning 1995; Hill et al 1990; Agarwal and Ramaswami 1992; Brouthers, et al 1999). A considerable number of empirical studies have been

attempted in order to apply directly or indirectly Dunning's framework to explain different internationalisation patterns. Kogut and Singh (1988) found that a firm will probably choose joint ventures or wholly-owned subsidiaries over acquisitions if the cultural distance between the home country and the host country is great. The same pattern may be followed if the culture of the investing firm is characterised by high uncertainty avoidance regarding organisational practices. Caves (1982) and Davidson and McFetridge (1985) support the notion that among the factors that influence the choice between licensing and FDI (joint venture and wholly-owned subsidiaries) are the characteristics of the host country, such as national policies towards FDI, market size, market characteristics and geographic proximity to the host country. Cho (1985), Sabi (1988), Terpstra and Yu (1988), Yu and Ito (1988) and Kimura (1989) have studied the extent of foreign direct investment. Their conclusions support Dunning's framework. Hennart and Park (1993) have accepted that there is a location decision as well as a governance decision in choosing to establish foreign production facilities.

The eclectic framework represents a multiple theoretical approach for studying the choice of entry mode. International trading theory, resource-based theory and transaction cost theory are the main theories on which the eclectic framework is based. The strengths of the framework lie in its number of explanans as well as its richness for generating new determinants and combining these with existing ones (Andersen 1997). It permits researchers to create new determinants in order to predict entry mode (Andersen 1997). However, the eclectic framework is criticised



for its static nature (Young, Hamill and Davies 1989). It cannot be used to examine why firms change their entry mode choice on the basis of a given contingency.

To conclude Section 2.3, we compare these five perspectives and discover that they are different in many respects. First, their theoretical foundations are different. Internationalisation process theory derives from resource-based theory, and thus resources of a firm are the key variable. Transaction cost analysis derives from transaction cost theory (Williamson 1971, 1985) and elements in a transaction are variables in studying entry modes. Organisational capabilities perspective derives from resource-based theory, which encourages exploitation of the resources of a firm for entry strategy choice. Contingency theory is built upon resource-based theory and transaction cost theory. Internal as well as external issues are taken into account in studying entry mode. The eclectic framework takes into account international trade theory, resource-based theory and transaction cost theory. It emphasises internal resources, external opportunities and transactions.

Secondly, they use different units of analysis. Internationalisation process theory emphasises the firm as does the organisational capabilities perspective. Transaction cost analysis and contingency theory use the transaction as the unit of analysis. The eclectic framework uses both the firm and the transaction as the unit of analysis.

Thirdly, they explain different types of entry modes. Internationalisation process theory explains why a firm follows a chain of establishments in its international

expansion. Transaction cost analysis and organisational capabilities perspective explain why some firms prefer collaboration modes while others do not. Contingency theory explains why some firms choose to invest in a foreign country (i.e. equity modes) while others do not (i.e. non-equity modes). The eclectic framework can explain a wider range of modes than any of its counterparts.

However, it must be pointed out that these perspectives are linked and share some common grounds, as indicated in previous discussions. For example, transaction cost analysis was developed since internationalisation process theory does not explain why firms prefer collaboration modes over non-collaboration modes. Internationalisation process theory and organisational capabilities perspective all focus on the amount of market knowledge a firm possesses. Contingency theory emphasise the environment a firm operates, which has been largely ignored by internationalisation process theory, transaction cost analysis, and organisational capabilities perspective. The eclectic framework intends to offer a comprehensive model to study entry mode and thus includes a great number of variables in internationalisation process theory, transaction cost analysis, organisational capabilities perspective and contingency theory. As Andersen (1993) argues, it merges other perspectives of entry mode.

Table 2.2 summarises the above overviews and presents the important differences among the five perspectives.



**TABLE 2.1      COMPARISONS OF DIFFERENT PERSPECTIVES ON ENTRY MODE**

<b>Theory Aspects</b>	<b>Internationali- sation Process Theory</b>	<b>Transaction cost analysis</b>	<b>Organisational capabilities perspective</b>	<b>Contingency theory</b>	<b>The eclectic framework</b>
<b>Basic Theory</b>	Resource-based theory	Transaction-cost theory	Resource-based theory, international trade theory	Transaction-cost theory, resource-based theory	International trade theory, resource-based theory and transaction cost theory
<b>Unit of analysis</b>	Firm	Transaction	Firm	Transaction	Firm and transaction
<b>Explanatory Variables</b>	Firm's knowledge, international experience, resource commitment	Transaction characteristics (Asset specificity, uncertainty)	Firm's capabilities	Internal capabilities and external opportunities	Ownership, location and internalisation advantages
<b>Decision criteria</b>	Trade-offs between growth and risk	Cost minimisation	Trade-offs between cost and value	Opportunity and returns	Trade-offs between value and cost
<b>Modes of Entry</b>	1) No export; 2) Export via independent agents; 3) Sales subsidiary; 4) Manufacturing	Contractual transfer; Joint venture, Wholly-owned subsidiary	Internalisation Vs collaboration	Involvement Vs Non-involvement; Equity modes Vs Non-equity modes	Several classifications e.g. independent mode, co-operative mode, integrated mode
<b>Limitations</b>	Applicable on manufacturer and early stage of internationalisation	Transaction cost cannot be accurately calculated; different criteria lead to different conclusions.	Applicable on firms with limited resources	Cannot provide a full explanation	Static
	Silent on the impact of the Internet on entry mode choice				

**Source:** *Derived from Andersen (1997), Bell and Young (1998) and Madhok (1997)*

One commonality has been discovered among them, which is that all of them are silent on the impact of the Internet on entry mode choice. This has become the starting point of the present research, to investigate to what extent differing Internet usage impacts upon entry mode choice. It should be noted that some research has

been conducted into the impact of the Internet on international business (e.g. Cronin 1996; Kedia and Chokar, 1996; Quelch and Klein 1996; Bennett 1997; Hamill and Gregory 1997), but they are myopic in many respects (see p.9 in Chapter One). One of them is that they are based only on successful stories. These cases are either large multinational corporations such as Dell, P&G, or large-sized forerunners in e-commerce such as Yahoo.com and Amazon.com, or e-commerce firms operating in the US. Little is known about small and medium-sized firms that operate outside the US or those that are not e-commerce firms, specifically traditional firms. Therefore, a gap identified is to use the existing theoretical perspectives to examine the effects of differing Internet usage on foreign market entry mode choice and its impact on performance against traditional firms of different sizes in a non-US market.

Traditional firms in the present research refer to those who seek markets, resources, efficiency, export and strategic assets in their international expansion (Young et al 1989; Dunning 1993). Their motivations are essentially driven by exploitation of firm-specific advantages in foreign countries (Caves 1971; Hirsch 1976; Buckley and Casson 1976). Non-traditional firms, by contrast, do not have firm-specific advantages to exploit in their international expansion and thus they seek knowledge that is available in the host market. Chung and Alcacer (2002) argue that knowledge seeking occurs among technical laggards trying to reduce the gap by investing abroad to acquire needed knowledge and it usually happens in research-intensive industries. The present research is interested in how firms choose entry modes when



the Internet is used; not on how firms seek knowledge with the Internet. Therefore, knowledge-seeking firms are not studied in the present research.

## **2.4 KEY VARIABLES IN ENTRY MODE PERSPECTIVES**

Five theoretical perspectives have been identified in studying entry mode, as cited above. Although there is no conclusion as to which one offers the most comprehensive and analytical approach, it is contended that they all have their own ‘conceptual and theoretical appeal’ (Calof and Beamish, 1995: p.118). If we want to examine the impact of Internet usage on entry mode, we have to review the variables identified in the above studies. In the following section, these key variables are discussed and their impacts on entry mode are reviewed. The purpose is to pave the way for future investigation of whether their impacts on entry choice remain the same when the Internet is introduced.

### **Key Variable 1: Firm Size**

Firm size has been studied for a long time in almost all foreign market entry mode perspectives (Horst 1972; Hood and Young 1979; Buckley and Casson 1976; Kumar 1984, Yu and Ito 1988; Cho 1985; Caves and Mehra 1986; Agarwal and Ramaswami 1992; Brouthers 2002). It has been shown that after controlling the impact of firm size, all other firm characteristics have little significant impact on the likelihood that a firm is going multinational (Horst 1972; Yu and Ito 1988). However, mixed results have been presented on the impact of firm size on entry mode choice.

First, it has been shown in some studies that larger firms prefer higher control entry modes, such as wholly-owned subsidiary as opposed to exporting (Buckley and Casson 1976; Cho 1985; Caves and Mehra 1986; Yu and Ito 1988; Terpstra and Yu 1988). For example, Yu and Ito (1988) discovered that firm size has a significant impact on firms' activities in FDI in the tyre industry and its significant impact is limited in the textile industry. The positive relationship between firm size and equity mode choice (FDI) can be explained as follows, according to organisational capabilities perspective and the eclectic framework.

- When a firm enters a foreign market, it is faced with a different environment from home (Terpstra and Sarathy 2000). Differences exist in many aspects, such as cultural, economic, and political. In order to find out about the new market, resources are needed to collect information and/or to employ people with relevant knowledge.
- Some activities, such as enforcing patents and contracts, or achieving economies of scale, which can be carried out easily at home may incur higher costs abroad due to unfamiliarity with the environment (Hood and Young 1979). Resources will therefore be required to absorb these costs.
- If a firm seeks equity arrangements, it will need resources to set up and run such operations in a foreign market. Firm size is usually used as the indicator



that reflects a firm's capability of doing this (Buckley and Casson 1976; Kumar 1984).

Secondly, some studies, particularly those of small and medium-sized (SMEs) firms, argue that the correlation between firm size and entry mode choice is not always positive (Lau 1992; Bodur and Madsen 1993; Oviatt and McDougal 1994; Dalli 1994; Chetty and Hamilton 1996). Oviatt and McDougal (1994) found that some SMEs have been involved in international business at their inception and therefore their internationalisation processes are more incremental, compared to those of their large counterparts. Lau (1992) examined the internationalization process of small garment manufacturers in Hong Kong. His findings support the notion that the internationalization process of smaller export-oriented firms differs from that of larger MNEs, and that their commitment in resource is rather incremental. The underlying rationale is that although small firms are limited in financial, human and technological resources to attain international markets, they can acquire necessary knowledge and experience of foreign markets through an incremental process (Lau, 1992; Bodur and Madsen 1993; Dalli 1994; Chetty and Hamilton 1996).

### **Key Variable 2: International Experience (Market Knowledge)**

It is contended that firms with higher levels of international experience tend to choose equity modes of entry. International experience has been used as a proxy to market knowledge in many studies (Errikson et al 1997; Agarwal and Ramaswami 1992). Foreign market knowledge is one of the key variables in internationalisation

process theory (Johanson and Vahlne 1977, 1992; Johanson 1990; Eriksson et al 1997), organisational capabilities perspective and the eclectic framework (Hill et al 1990; Agarwal and Ramaswami 1992). It can be classified into two types: objective knowledge and experiential knowledge (Penrose 1959). Objective knowledge is acquired through standardised methods of collecting and transmitting information, and can be easily transferred to other countries and replicated by other firms (Eriksson et al 1997). Since it is easily learnt, objective knowledge is regarded to have only minor importance in a firm's internationalisation process (Johanson and Vahlne 1977). This notion has received support from studies such as Ayal and Zif (1979), Denis and Depelteau (1985), Reid (1984), Simpson and Kujawa (1974), and Sunzook (1978). Experiential knowledge is, as argued in Johanson and Vahlne (1992) and Eriksson et al (1997), the driving force in a firm's internationalisation. It was gained through experience from current business activities operating in other international markets (Carlson 1974; Johanson 1990; Johanson and Vahlne 1992; Eriksson et al 1997). It is country-specific and its collection, transmission and interpretation are all based on specific situations (Carlson 1974). Therefore, it cannot easily be transferred between firms or business units, and the cost of doing so is immense (Eriksson et al 1997).

If a firm has more experiential knowledge about the market, its clients, the opportunities and challenges, as well as how to operate in a foreign country, it will tend to commit more resources in international expansion (Johanson and Vahlne 1977). Terpstra and Yu (1988) argue that being exposed to international operations, a firm's organisational structure and its information gathering and assessing system are



likely to be changed to adapt to new challenges; and the changes will have an impact on the firm's operation in other countries. Other more recent studies have presented similar findings. For example, Agarwal and Ramaswami (1992) and Brouthers (2002) found that firms with more international experience show a preference for a sole venture mode over a joint venture among equity modes. It should be noted that experiential knowledge and firm size have been found to be highly correlated in some studies, such as Agarwal and Ramaswami (1992), in which firm size and experience are treated as a factor that affects entry mode choice.

### **Key Variable 3: Firms' Special Abilities**

The distinctive abilities of a firm are the focus of both organisational capabilities perspective and the eclectic framework (Stopford and Wells 1972; Davidson 1980). As discussed in Section 2.2.4, these abilities are the focus of the Hymer-Kindleberger Theory. Their nature has long been debated (e.g. Hymer 1960 1976; Kindleberger 1969; Anderson and Coughlan 1987; Collins 1991); and has been perceived from different perspectives. For example, Hymer (1960 1976) and Kindleberger (1969) see these abilities as resulting from marketing skills, superior management techniques, or possession of a patented technology. Caves (1971) regards them as being able to differentiate their products. Hirsch (1976) views it as abilities to carry out R&D.

Although there is no agreement on what special abilities are defined, it is contended that special abilities equip firms with competitive advantage against indigenous

firms, who have established long-term relationships with local customers (Buckley and Casson 1976; Hood and Young 1979). These abilities are regarded as 'the irreversible assets with which the firm is uniquely advantaged' (Collins, 1991, p.52). Accordingly, a firm is unwilling to share this type of advantage or expose it unnecessarily to potential competitors. Therefore, when choosing entry modes, it will not favour non-equity modes, such as exporting, as it has little control and the risk of dissemination is high (Anderson and Coughlan 1987; Kogut 1989; Agarwal and Ramaswami 1992).

#### **Key Variable 4: Market Potential (Market Size)**

Market potential, i.e. size of a market, is another factor that has an impact on entry mode choice (Aharoni 1966; Forsyth 1972; Weinstein 1977; Khoury 1979; Choi et al 1986; Terpstra and Yu 1988; Agarwal and Ramaswami 1992; Chen and Hu 2002). It is the focus of contingency theory and the eclectic framework. When market size increases, benefits of internationalisation will increase (Chen and Hu 2002). In order to secure such benefits, firms tend to choose equity modes in a foreign market with high potential (Choi et al 1986; Terpstra and Yu 1988; Agarwal and Ramaswami 1992; Chen and Hu 2002). The reasons are as follows:

First, as the general FDI studies show, FDI represents the commitment of resources to operations in a foreign market, which the firm might be unfamiliar with, and thus investment risks might be high. In order to compensate, firms might want to invest in countries with high market potential (e.g. Terpstra and Yu 1988; Chen and Hu 2002).



Secondly, equity modes can generate a high level of control, compared to non-equity ones (Hill et al 1990; Johanson and Vahlne 1992; Agarwal and Ramaswami 1992). In a market with high potential and high investment risk (Chen and Hu 2002), choosing equity modes enables firms to gain benefits of economies of scale and long-term market presence, as argued in Chen and Hu (2002). As revealed in Agarwal and Ramaswami (1992), when it came to choosing between non-equity modes (i.e. exporting) and equity modes (i.e. joint ventures and wholly-owned subsidiaries), market potential is one of those variables that have significant positive effects on equity modes.

The positive relationship between market potential (market size) and choosing equity modes has been observed in many studies, such as Choi et al (1986) on international banking, and Weinstein (1977) and Terpstra and Yu (1988) on international advertising agencies. Their findings are consistent with those studies on manufactories, such as clothes and toy manufactories in China invested by foreign companies (Chen and Hu 2002). Harrigan (1984) found that when investing in a market with low potential, firms tend to avoid committing substantial resources.

### **Key Variables 5: Investment Risk (Country Risk)**

Investment risk (Country risk) refers to the volatility of a host-country's political and market conditions (Anderson and Gatignon 1986). It is one of the important factors identified in contingency theory. It has been found that restrictive policies in a host country are likely to impede foreign direct investment (Stopford and Wells 1972;

Rugman 1979). For example, Anderson and Coughlan (1987) found the impact of US antitrust law on inward FDI. Although each host-country government may project observable attitudes toward foreign investors, private property, and contracts, such attitudes are subject to unpredictable changes (Eaton et al 1986; Young 2001). Therefore, investment risk reflects the uncertainty over the continuation of present economic and political conditions and government policies that are critical to the profitability of a firm's investment.

In a country where investment risk is high, economic conditions at both the national and industry levels (Caves and Mehra 1986) are more likely to change. As a result, some problems will incur, which include firms having difficulties repatriating their earnings (Anderson and Gatignon 1986; Root 1987), and having to withdraw from the market in some extreme cases (Root 1987). In such a case, a firm would be better off not entering; but if it does, it may favour use of non-equity modes (Agarwal and Ramaswami 1992). Agarwal and Ramaswami (1992) argue that in the case of non-equity modes, 'the investment to exploit the foreign market is made in the home country and hence provides immunity from investment risk in the host countries' (p.10). It is therefore contended that firms are likely to choose equity modes to enter a foreign market where there is lower investment risk

### **Key Variable 6: Transaction Cost**

According to transaction cost analysis, non-equity modes, such as exporting and licensing, are transaction-based and thus encounter costs in a transaction. These



costs include the *ex ante* cost of negotiating a contract and the *ex post* cost of monitoring the performance and enforcing the behaviour of the parties involved (Williamson 1985). Unlike non-equity modes, equity modes such as wholly-owned subsidiaries provide firms the chance to control the operation as a result of equity investment and demolish transaction cost by reducing the number of contracts. Even choosing an independent channel, as Anderson and Coughlan (1987) argue, enables a firm to tap the benefits of a distribution specialist in the foreign market. These benefits include the economies of scale and scope that the independent obtains by pooling the demand for distribution services of several manufacturers. Non-equity modes are attractive only when transaction costs are low to offset the risk of investment (Agarwal and Ramaswami 1992). Therefore, if firms foresee higher transaction costs, they will tend to eschew non-equity modes (Agarwal and Ramaswami 1992; Brouthers 2002).

All the above variables are identified in entry mode perspectives that are discussed in the section. Their impacts on entry mode are summarised in Table 2.2. The sign of ‘+’ indicates that this variable has been found in the existing literature to have a positive impact on choosing equity modes. The sign of ‘-’ indicates that a negative impact has been found in the literature. Some variables have been found to have mixed effects on choosing equity modes, such as firm size.

**TABLE 2.2**      **EFFECTS OF KEY VARIABLES ON ENTRY MODE CHOICE**

Key Variables		From Which Perspectives	Effects on Equity Mode Choice	Sources
1	Firm Size	Internationalisation process theory, Organisational capabilities perspective & The eclectic framework	+	Buckley and Casson 1976; Kumar 1984; Cho 1985; Caves and Mehra 1986; Yu and Ito 1988; Gatignon and Anderson 1988; Terpstra and Yu 1988; Agarwal and Ramaswami 1992; Erramilli and Rao 1993; Brouthers 2002; Chen and Hu 2002
			-	Lau, 1992; Bodur and Madsen 1993; Dalli 1994; Chetty and Hamilton 1996
2	International experience	Internationalisation Theory & The eclectic framework	+	Simpson and Kujawa 1974; Sunzook 1978; Ayal and Zif 1979; Reid 1984; Denis and Depelteau 1985; Agarwal and Ramaswami 1992; Brouthers et al 1999; Brouthers 2002
3	Special Abilities	The Organisational Capabilities Perspective & The eclectic framework	+	Anderson and Coughlan 1987; Kogut 1989; Barney 1991; Collins 1991; Agarwal and Ramaswami 1992
4	Market Potential	Contingency theory & The eclectic framework	+	Weinstein 1977; Harrigan 1984; Choi et al 1986; Terpstra and Yu 1988; Agarwal and Ramaswami 1992; Brouthers 2002; Chen and Hu 2002
5	Investment Risk	Contingency theory	-	Rugman 1979; Stopford and Wells 1972; Miller 1992; Agarwal and Ramaswami 1992
6	Transaction cost	Transaction cost analysis & The eclectic framework	+	Buckley and Casson 1976; Williamson 1985; Agarwal and Ramaswami 1992; Calof and Beamish 1995; Brouthers 2002



It can be seen that among the six key variables, only investment risk is found to have a negative effect on equity mode choice; and the effect of firm size is positive in some studies yet negative in others. These variables have been used to examine entry mode choice in a number of empirical studies, such as Agarwal and Ramaswami (1992), Brouthers (2002), Nakos and Brouthers (2002). In the present study, they are adopted alongside the Internet usage to investigate to what extent entry mode is impacted by the advent of the Internet.

## **2.5 ENTRY MODE AND PERFORMANCE**

The impact of Internet usage on entry mode performance is considered equally speculative in the present study as the impact of Internet usage on entry mode. Studies of entry mode performance can be traced back to Root (1987). He argues that the choice of entry strategies is a critical determinant of the performance of a firm. However, it is contended that little attention has been paid to the performance implications of entry mode (Woodcock et al 1994; Li 1995; Shrader 2001). The few studies into this area have tended to follow two different paths.

First, some studies compare different modes by using certain financial indicators, or non-financial subjective measures. For example, Wilson (1980), using the database from the Harvard Enterprise Project, concluded that wholly-owned subsidiaries are less likely to be divested than acquisitions. Delacroix (1993) reached the same conclusion after studying the same database with a different methodological approach. Woodcock et al (1994) compared the rate of gain, break-even and loss of

new ventures, acquisitions and joint ventures, and concluded that new ventures out-perform acquisitions and joint ventures, and acquisitions out-perform joint ventures. Shrader (2001) argues that collaboration modes coupled with high R&D costs perform better than non-collaboration modes.

Secondly, other studies have focused on whether the entry mode chosen according to the entry mode determinants performs well. For example, Brouthers (2002) concluded that entry modes chosen as a result of transaction cost analysis out-perform others. Anand and Delios (1997) suggest that a firm's ability to exploit existing resources will determine the performance implications of difference modes of entry and they conclude that Greenfield entry performs best when existing resources can be exploited, but that acquisitions and joint ventures perform better when new competencies are needed. Shaver (1998) used 6 independent variables to examine mode choice and then include them together with the mode chosen to examine the performance.

The second type of methodology is of particular interest to the present research. This is because if the entry mode chosen, based on entry mode determinants, does not perform well, firms are likely to choose other modes. As it stands, it implies that the entry mode determinants are important to the performance of a firm.

Among the theoretical entry mode perspectives, internationalisation process theory and transaction cost analysis are among the few that directly highlight the



relationship between entry mode and the performance of a firm. Specifically, internationalisation process theory views international expansion as a process of knowledge development and resource commitment (Johanson and Vahlne 1977, 1990). When a firm has sufficient knowledge about a foreign market, it tends to commit more resources in a foreign country. This underlines the importance of knowledge in both entry mode choice and firm performance (Li 1995). Transaction cost analysis focuses on cost reduction and profit maximisation. It implies that modes that are chosen according to transaction cost analysis are deemed to be better performers than those that are not (Brouthers 2002). Since contingency theory and the eclectic framework both include transaction cost analysis, they can be used to examine entry mode and the performance of a firm, as in Brouthers (2002). Therefore, in the present research, entry mode and the performance of a firm will be examined using the entry mode determinants alongside new variables, modelling different uses of the Internet.

## **2.6 THE INTERNET - A NEW TECHNOLOGY**

Having identified 5 strands of entry mode and the key variables for them, this section now considers the commercial use of the Internet and how it influence international business. The purpose is to build foundations for the next section (Section 2.7) regarding the impact of the new technology on entry mode choice and consequently on these five theoretical strands.

### **2.6.1 Commercialisation of the Internet**

In the early 1970s, the US Defence Department established the Advanced Research Projects Agency (ARPA) to link various military and research institutions. A protocol was set up to facilitate communication among various researchers. This protocol was known as the transmission control protocol (TCP) or Internet protocol (IP). The net was called ARPAnet, which allowed users of otherwise dissimilar computer systems to communicate. In the late 1980s, the National Science Foundation (NSF) used ARPAnet technology to expand its own NSFNET. Later, a global network was set up for government-sponsored and university-sponsored researchers. This net later became what we now know as the Internet.

The Internet is a global network of inter-linked computers, operating on a standard protocol that allows data to be transferred between otherwise incompatible machines (Hamill 1997). Data that are transferred include text, graphics, video, software, voice etc. The key to understanding the Internet is the concept of connectivity (Hamill and Gregory 1997). Without being connected, a PC can only perform with a limited capability (Hamill and Gregory 1997). When networked to other PCs on the Internet, it becomes a very powerful communication and information search apparatus. In this ‘network of networks’ (Hamill 1997, p.10), individuals, companies, governments, universities and many others can interact. The Internet removes many barriers to communication created by geography, time zones, and location, and thus creates a ‘frictionless’ environment (Colony et al 1995; Lazer and Shaw 2000). Consequently, the number of hosts, networks and domains has increased dramatically over the last



decade (Hobbes, 1996) (see Table 2.2). It has been estimated that there would be 90 million households with access to the Internet in the USA, and a further 35 million in Europe by the year 2000 (Dutta and Segev 1999).

**TABLE 2.3      INTERNET GROWTH, 1990-1996, WORLDWIDE**

Year	Hosts	Networks	Domains
1990	313,000	2,063	9,300
1991	617,000	3,556	18,000
1992	1,136,000	7,505	18,100
1993	2,056,000	16,533	28,000
1994	3,212,000	25,200	46,000
1995	6,642,000	61,538	120,000
1996	9,472,000	93,671	240,000

Source: Hobbes (1996)

In 1991, the Internet was commercialised with the establishment of the Commercial Internet Exchange Association (CIEA), which aimed to encourage greater business participation. This led to a proliferation of commercial sites, which now represent the fastest growing part of the Internet (Hamill 1997). Many firms have started to launch web sites in order to do business on the Internet. Firms use the Internet in the following ways.

First, some communicate within the organisation by using electronic mail (email). They also do with their business partners or customers. Customers and clients can be reached easily prior to and after sales. For example, Boeing Aircraft began to use the Internet to establish new channels for after-market sales ([www.boeing.com](http://www.boeing.com)). Fewer than ten months after its web site for Parts Analysis & Requirement Tracking (PART) was launched in October 1996, Boeing was able to conduct more than US\$40 million worth of business online.

Secondly, some upload information about the firm, products and services they provide. The new medium of publicity is considered cheaper than the traditional ones (Atkearney). A good example is Sun Microsystems ([www.sun.com](http://www.sun.com)). It saved more than US\$1 million from its marketing costs in January 1995 by going for Internet advertising. By the end of the same year, its savings totalled more than US\$20 million. It was predicted by Atkearney that Sun's savings would soar as customers, prospects and business partners revisited its web site for information, assistance, and updates.

Thirdly, some firms use the Internet to sell products and services. Transactions can be made online directly (Quelch and Klein 1996; Hamill and Gregory 1997). This usage of the Internet has been increasing ever since commercialisation. In a report published in October 1996, it was predicted that by the year 2000 more than \$546 billion would be spent online (Forrester Research 1999). Many firms have benefited significantly by adopting the Internet in order to enhance their business. For



example, the computer giant, Dell, sells \$1 million worth of computers every day via its web site, [www.dell.com](http://www.dell.com), which accounts for as much as 10 percent of its total sales (Forrester Research).

Fourthly, some firms use the Internet to search for and retrieve useful information. This information might include not only information about their competitors, but also their customers and potential customers. Information about their competitors provides firms with a chance to evaluate their products, prices and other strategies they have adopted. Information about customers and potential customers helps to obtain more sales. For example, Amazon.com keeps a good record of its customers. The database is set up according to customers' educational levels, hobbies, etc. Whenever there is a new product of interest available to customers with particular tastes, Amazon.com always informs them with profile-specific emails.

### **2.6.2 Characteristics of the Internet**

Since the adoption of the Internet for the purpose of business, its use has generated some success stories. They have encouraged academic researchers to investigate precisely what advantages the Internet offers to businesses. The studies cited in this thesis are among the most significant publications to detail characteristics of the new technology (e.g. Cronin 1996; Sterne 1995; Quelch and Klein 1996; Bennett 1997; Hoffman and Novak 1996b; Hamill and Gregory 1997; Nath et al 1998). They argue that the Internet offers several advantages as follows:

#### **2.6.2.1      *Easy Access to Customers***

The Internet allows firms to upload information about themselves, after which it can be viewed by other users (Berthon et al 1996 1998). Some firms or individuals might be interested in buying the products and services publicised. Through information disseminated via the web, they are able to contact any firms that interest them or make online purchases. Therefore, Nath et al (1998) argues that the Internet provides firms with easy access to business partners and customers. Lituchy and Rail (2000) found that with the new technology potential customers can be easily reached from around the world and the cost is rather low.

#### **2.6.2.2      *New Means of Communication***

The Internet has changed the way that firms communicate with each other. Once a firm launches its web site, it aims at an online business community. Communication via the Internet is quicker, more interactive and responsive than by any other means (Ellsworth and Ellsworth 1996; Berthon et al 1998). Both business partners and individual customers do not need to wait a long time for a reply via the Internet (Timmers 1999). In addition, business partners and customers may be involved in interactive communication. This was the case, for example, when Proctor & Gamble launched a web site ([www.tide.com](http://www.tide.com)) for one of its products, Tide. It uses automated problem-solving to recommend treatments for a range of laundry problems. Without the Internet, customers might well end up waiting for a long time on the customer service call line or hotline for a reply by mail. Customer relationships with businesses have been improved through the quicker and more interactive



communication channels created by the Internet (Sterne 1995, Turban et al 2002). As for businesses, the business process cycle is shortened (Cronin 1996; Nath et al 1998; Berthon et al 1998). Being a new means of communication, the Internet enables firms to be more customer-oriented because it brings benefits for customers in the form of improved service, convenience and choice (Timmers 1999).

#### **2.6.2.3      *A New Marketing Medium***

The Internet can be used as a marketing medium (Quelch and Klein 1996; Berthon et al 1998; Turban et al 2002). Some firms upload information onto their own web sites for publicity. Others publicise themselves on the web sites of others, rather than have their own. For example, a large number of firms publicise on search engine web sites, such as [www.yahoo.com](http://www.yahoo.com). By doing so, firms do not need to pay to have expensive catalogues or brochures printed out and distributed (McBride 1997). They do not need to pay for traditional advertising media such as the newspaper, TV, radio (Cronin 1996; Turban et al 2002). Therefore, it is argued that marketing costs are lowered (Cronin 1996; Nath et al 1998; Berthon et al 1998). Firms that need to conduct market research may find it cheaper to obtain and distribute market information over the Internet (Mahadevan 2000). McCue (1998) concludes that the Internet can reach a potentially larger and more targeted market with greater cost effectiveness than traditional marketing venues.

#### **2.6.2.4      *International Online Presence***

Once firms launch their web site, they have an immediate international presence (Quelch and Klein 1996) because web users come from all around the world. In order to demonstrate that they are not behind in employing state-of-art technology, firms are always keen to launch web site on which their characteristics can be seen. Timmers (1999) gives some examples of how businesses make use of the Internet to improve their corporate image. Technology-oriented firms could raise their profile among technology-mind customers and newcomers could build an image and establish a name through the web (Timmers 1999). Therefore, it has been argued that the image of a firm can be improved with the launch of a web site (Sterne 1995; Nath et al 1998).

#### **2.6.2.5      *A New Delivery Channel***

Some firms deliver their products and services to customers via the Internet, such as banks providing online service and firms selling software or music on the web (Benjamin and Wigland 1995; Peterson et al 1997; Turban et al 2002). These firms no longer need to pay for the services of a postal courier. Therefore, it is argued that the Internet is replacing the traditional distribution channels (Benjamin and Wigland 1995; Peterson et al 1997), although the Internet's real potential far exceeds being merely a cheaper distribution channel (Maxmin, 2001). Timmers (1999) argues that 'the ability to distribute a product as soon as it has been created or with a tightly controlled time span between order and delivery is important in many markets'



(p.22). The Internet, being a new deliver channel, enables firms to outpace competitors by being first to market.

#### **2.6.2.6      *Customers' Remote Experience of Products and Services***

By disseminating information of products onto the web, some firms are trying to create a virtual product for their customers to experience (Venkatraman and Henderson 1998). It simulates key product features from a physical space (storefront) to another physical space (paper), separated by time and distance. Customers could thus experience the different products through the pages of a catalogue and made their purchase without actually seeing or touching the product – this can be justified by the ever increasing sales through mail order (Venkatraman and Henderson 1998).

Table 2.4 summarises the key characteristics of the Internet alongside some of the main sources detailing them.

**TABLE 2.4      CHARACTERISTICS OF THE INTERNET**

Characteristics	Source
Shorten geographic distance	<a href="http://www.cordis.lu/esprit/src/ecomint.htm">www.cordis.lu/esprit/src/ecomint.htm</a>
Cost/efficiency Performance improvement	Cronin 1996; McBride 1997
Improved communications Corporate logistics	Ellsworth and Ellsworth 1996; Hoffman et al 1996
Corporate image improvement Customer relations improvement	Sterne 1995; Verity and Hof 1994
More rapid SME internationalisation Importance of scaled economies reduction	Quelch and Klein 1996; Hamill and Gregory 1997; Oviatt and McDougal 1998
Existing distribution channels replacement	Benjamin and Wigland 1995
Influences of culture reduction Influence of economic development reduction	Kantor and Neubarth 1996; Bennett 1997; Hamill and Gregory 1997
Ease of access and global reach Corporate image improvement Low-cost advertising medium	Nath et al 1998
Lower distribution cost Capture of customer information	Hoffman and Novak 1996a 1996b
Image and quality improved Cost lowered Efficiency increased	Timmers 1999



### **2.6.3 The Impact of the Internet on International Business**

Since the Internet connects firms from around the world, its influence on international business is or might be immense, as the Internet has impacted significantly some elements in international business.

First, once a firm launches a web site, it can be contacted via the Internet at any time around the clock (Quelch and Klein 1996). This communication means is not restrained by time zones or international locations, as is the telephone for example (Nath et al 1998). It is not restricted by business hours (Quelch and Klein 1996). The implications for international business are at two-fold. First, firms may contact their foreign customers at low cost. Unlike sending a fax or a letter, using the Internet for communication can be done at a local rate (Ellsworth and Ellsworth 1996; Hoffman et al 1996). Secondly, firms save time in getting contact with their foreign customers via the Internet. The process is certainly shorter than by mail (Cronin 1996).

Secondly, firms that sell their products and services on the web find there is little distinction in selling them to different countries around the world (Quelch and Klein 1996). All they have to do is to receive the orders, pack the products, distribute them through the post office or special courier, and then settle the transaction with the credit card company. It is the customers who are responsible for the postage in most cases. When a product or service can be delivered via the web, firms particularly find it easy to do business (Benjamin and Wigland 1995). This reduces delivery cost for international orders. Therefore, it is claimed that geographic distance is

shortened owing to the Internet (more arguments can be found at [www.cordis.lu/esprit/src/ecomint.htm](http://www.cordis.lu/esprit/src/ecomint.htm)).

Thirdly, online customers are found to show some common characteristics, male, well-educated, computer-literate and young (Bennett 1997) ('Although this is changing rapidly', argues Bennett 1997). Their consuming patterns tend to be convergent despite their demographic or cultural differences (Kantor and Neubarth 1996). Therefore, the influence of national culture and economic development is reduced for the conduct of international business, compared with its more traditional forms (Bennett 1997).

Fourthly, firms can easily set up virtual branches on the Internet by launching local web sites with local domain names (Quelch and Klein 1996) or they can easily form virtual alliances (Dunning and Wymbs 2001). By doing so, they can readily broaden their sales or marketing channels or increase international exposure. Since the capital requirement is low, even small firms are able to do this. In addition, access to the Internet is available to all companies on an equal basis, regardless of size. Small firms may advertise themselves prominently as their larger counterparts, and their web sites can be just as professional and eye-catching (Verity and Hof 1994). Therefore, some authors have argued that the Internet has lowered requirements for internationalisation (Bennett 1997; Hamill and Gregory 1997).



When these factors are considered together to investigate the impact of the Internet on international business, many studies showed interesting results. For example, Zhao and Du (2000) found that firms might experience rapid, multidirectional and highly differentiated internationalisation with the use of the Internet in terms of speed, scope and sequence, compared to the incremental, unidirectional and relatively differentiated internationalisation of their counterparts who have not adopted the Internet.

## **2.7 THE ADOPTION OF THE INTERNET**

### **2.7.1 General Theories on New Technology Adoption**

As cited in Gagnon et al (2000), the adoption of a new technology refers to the acquisition, successful implementation and use of a technology by an organisation. It has been discovered that managers play an important role in the adoption of new technologies (Gagnon and Landry 1989). Management behaviour is a decisive factor in the effective management of the process of adopting a new technology (Voss 1992; Gagnon et al 2000).

These arguments are based on Stevenson's model (1983, 1984 and 1986). He posits that when managers decide to adopt a new technology, they tend to take a role anywhere in the continuum between administrator and entrepreneur. In his model, an administrator designs a plan or strategy, based on his experience and the analysis of available data – the more experience he has, the better position he will be to evaluate and adopt innovations (Gatignon and Robertson 1989). He works to integrate a set of

decisions into a package by which new technology can be exploited effectively (Burgelman 1983; Ross 1987). An entrepreneur, on the other hand, moves confidently towards an uncertain future (Mintzberg 1973), driven by intuition, rather than by data analysis and experience (Pinchot 1985). They are often viewed as slightly impulsive individuals (Quinn 1982), since they tend to avoid the constraints of organising, documenting and following a plan.

Since managers act differently in opportunity seizure, resource commitment decision and control, they tend to adopt new technology differently (Gagnon and Landry 1989; Gagnon et al 2000). For example, Gagnon et al (2000) found that the same new technology was adopted differently by different firms, and that those firms where managers had an entrepreneurial style of behaviour tended to be less successful. Therefore, it can be assumed that the Internet as a new technology is adopted differently in different firms.

### **2.7.2 The Adoption of the Internet**

As discussed in 2.5.2, the Internet has created a new market place, a new distribution channel, a new communication means. Therefore, the challenge for managers is to decide how to adopt the Internet. In some studies, such as Breitenbach and Doren (1998), the Internet adoption is found to follow a process, which involves the changes in attitude experienced by individuals from the time they first hear about the existence of a company Web site on the Internet. For example, empirical research has been conducted by IBM (Hong Kong) Ltd on how firms adopt the Internet. It has



revealed in the 2000 report that among 207,286 firms, about 41.6% of them have adopted Internet-related technologies. Among them, 28.7% of them use email for communication. 8.7% of them own their web sites by which information is disseminated. 3.9% of them have online transaction facilities. 0.3% of them make full use of the Internet (Report of Hong Kong Productivity Council, May 2000).

Unlike the theories of progressive adoption, some studies focus on different types of the Internet usage (e.g. Quelch and Klein 1996; Atkearney 1999; Arnott and Bridgewater 2002). Quelch and Klein (1996) argue that the Internet can be used to generate sales and to provide information and service. They point out that multinational corporations tend to adopt the information-to-transaction model, whereas start-ups tend to use the transaction-to-information model. In a report of Atkearney (1999), selling, marketing, distribution and customer service are the four types of Internet usage identified. Arnott and Bridgewater (2002) postulate that the Internet can be used in the informational, relational and transactional ways. McBride (1997) argues that firms can use the Internet to communicate with their customers via email, to market their products and services at a low price, to sell products and services online and to generate a database for use. In the present study four types of usage are adopted, selling, disseminating information, providing customer service and conducting market research.

## **2.8 PROPOSITIONS**

The impact of the Internet on international business theorising has already been noted, such as Dunning: ‘The information technology revolution is like an iceberg, the largest and most interesting part of which is below the paradigmatic water line’ (Dunning and Wymbs 2001, p.274). Whilst stressing the importance of technological advances in transforming our lives by realising new, undreamed of products and producing them in new, undreamed of ways, Dunning and Wymbs (2001) assert that E-commerce is not a trajectory shift in our analysis of the determinants of international business. They found that the basic tenets of entry mode perspective such as Dunning’s eclectic paradigm holds well, although the operational application of several of the constituent parts and the context in which they consider might need to be redefined in the light of the new technology. Accordingly, this thesis explores how Internet usage impacts on entry mode choice.

### **Proposition 1 (Firm Size)**

The resources of a firm (firm size is the indicator) have been found to be positively related to choosing equity mode (e.g. Hood and Young 1979; Buckley and Casson 1976; Kumar 1984; Yu and Ito 1988). The resource-based theory suggests that a firm’s competitive advantages are internally generated rather than being determined by the industry it operates in (Capron and Hulland 1999). The assets identified as creating competitive advantages are those primarily based on physical resources.



However, Dunning and Wymbs (2001) argue that human capital, organisational learning and a network of relationships, both internal and external to the organisation, are becoming the new rare and non-transferable assets of an electronic economy. The present research will not attempt to argue how physical resources are being replaced. It will investigate whether the physical resources of firms (firm size) still play an important role in entry mode choice. What we see after the emergence of the Internet is summarised as follows. When the Internet is used to sell products or services, firms of any size are seen to follow the same pattern in choosing foreign market entry mode (Quelch and Klein 1996; Lituchy and Rail 2000) – small firms are no longer at a disadvantage owing to their more limited resources (Chen et al 2001). The resource requirements of internationalisation have been reduced by the Internet (Hoffman and Novak 1996a). Advertising costs have been lowered dramatically, where they used to be extremely high when firms entered a foreign market. By loading information onto the web, firms can easily reach mass customers and also target various segments of the market (Lituchy and Rail 2000); even small-sized firms that offer specialised niche products are able to do this (Hamill and Gregory 1997). If the Internet is used to collect information, firms may find it cheaper to achieve their objectives. Overseas research activities are not necessary in many cases since browsing the Internet can be just as good. Hence, we propose:

**P1:** *Firm size does not influence entry mode choice when the Internet is used in international business.*

### **Proposition 2 (Previous International Experience)**

Previous international experience has been found to be positively related to choosing equity modes (Johanson and Vahlne 1977; Eriksson et al 1997; Agarwal and Ramaswami 1992; Brouthers 2002). In other words, the more previous international experience a firm has, the more it can generate ideas about foreign markets and how to run a foreign operation. Therefore, such a firm will be more confident in committing resources (equity modes).

In the era of E-commerce, however, networking and innovation are replacing physical processes (Cartwright and Oliver 2000) as value-added activities which create knowledge, which is different from some conventional theories such as internationalisation process theory about experiences being knowledge-creation activities (e.g. Johanson and Vahlne 1977). This may change the relationship between international experience and entry mode choice. For example, when the Internet is used to sell products or services, once online sales go well, new web sites or foreign operations may be launched regardless of how much international experience a firm might have gained. Amazon.com is a good example. Not long after the launch of its domestic web site, offices in Britain, Canada, Germany and Japan were set up. To take another example in which experience appears to be less important, when the Internet is used to improve relationships with customers, foreign customers can be contacted via email. It is highly likely that even after years of using the Internet in this way, many firms will still prefer to remain in their home



country, so they will not need to consider the resource commitment and investment risks involved in entry strategies. Here we propose:

**P2:** *The impact of previous international experience on equity mode choice decreases if the Internet is used in international expansion.*

### **Proposition 3 (Special Abilities)**

A firm's special abilities have been found to be positively related to choosing equity modes (Anderson and Coughlan 1987; Collins 1991). The more special abilities a firm has, the more likely it will opt for equity modes. We argue that the special abilities of a firm do not decrease with the introduction of the Internet. On contrary, its usage can be positively associated with building some distinctive abilities of firms, such as how to use the Internet to consolidate their competence, as Tiessen et al (2001) posit. The level of computer competence is found to affect a firm's use of the Internet (Davis 1989) - the higher the computer competence, the more confidence a firm will have in doing international business. However, it has been noted that it is related to firm size. Larger firms are more able to risk committing resources to innovations, such as implementing web sites, and they are more likely to be able to bear the costs, such as search and negotiation, associated directly with conducting business abroad (Peng and Illinitch 1998). This is demonstrated in Tiessen et al (2001). In the hi-tech industry, smaller firms use web sites mainly as a means of carrying out complex transaction; large firms in the travel industry, for example, exploit many functions of their web sites (Tiessen et al 2001). If this is true, larger

firms should be expected to use the Internet at more complicated levels than their smaller counterparts. We propose:

**P3:** *The more special abilities a firm has of using the Internet, the more likely it will pursue equity modes.*

#### **Proposition 4 (Market Potential)**

Market potential has been found to be positively related to choosing equity modes (Choi et al 1986; Terpstra and Yu 1988; Agarwal and Ramaswami 1992; Brouthers 2002). In other words, the higher market potential there is in a foreign country, the more likely it is that firms will pursue equity modes for international expansion. However, Applegate et al (1996) assert that in the era of E-commerce, firms tend to expand into markets with well-developed telecommunication infrastructures, since they expect more customers by launching web sites. If the telecommunication infrastructure in a particular country is not well developed, this means the number of the Internet users is limited, implying low market potential. This is in accordance with Dunning and Wymbs' (2001) assertion that countries with inexpensive flat-rated telephone access, such as the USA, record a much higher Internet penetration than those with high or variably priced access. Therefore, some authors suggest that the use of the Internet (Bennett 1997; Samiee 1998a), and/or people's perceived acceptance of Internet business in a particular country (Balabanis and Vassileiou 1999) characterises market potential for Internet business. If this is true, market potential should be re-



defined in Internet business and moreover, the relationship between market potential and entry mode should be re-examined. Here we propose:

**P4:** *Market potential is likely to have a positive impact on choosing equity mode in the context of Internet business.*

### **Proposition 5 (Investment Risk)**

Investment risk has been found to be negatively related to choosing equity modes (Stopford and Wells 1972; Rugman 1979; Agarwal and Ramaswami 1992; Brouthers 2002). When investment risk in a foreign country is high, firms try to avoid committing a large amount of resource for fear of expropriation (Root 1987) and difficulties of repatriation of earnings (Anderson and Coughlan 1987). However, in the era of E-commerce, Bennett (1997) argues that business on the web is less influenced by a single government's regulation (Bennett 1997). This is contradictory to Dunning and Wymbs (2001). They postulate that government policies towards telecommunications and foreign companies are important because it is obvious that the quality of the telecommunication infrastructure is an important factor in the information revolution. We think that if firms do cross national borders for international business opportunities, investment risk still plays a critical role in their decision as to whether to set up new operations in a foreign market. Here we propose:

**P5:** *The less investment risk there is in a foreign country, the more likely it is that a firm using the Internet will pursue equity modes.*

### **Proposition 6 (Transaction Cost)**

Transaction cost is considered to have a positive effect on equity mode choice (Williamson 1985; Hennart 1988; Brouthers 2002). However, it is argued in the present research that the dissemination of all types of information onto the Internet has changed or is changing the context in which transactions take place. It provides equal opportunities to buyers and sellers, customers and merchants, as well as those in the middle of the supply chain. More choice have facilitated the creation of an environment of vigorous and intense competition (Poon and Jevons 1997; Timmers 1999; Tiessen et al 2001). The ever-increasing competition creates nearly perfect market conditions, and the increased market pressures minimise the need for monitoring and enforcing out-contracts (Anderson and Coughlan 1987; Hennart 1988). Under these conditions, market-contracting arrangements are favoured because the threat of replacement dampens opportunism and contractors are forced to perform efficiently (Anderson and Coughlan 1987; Anderson and Gatignon 1986). When used correctly, the Internet permits all information to be obtained and processed easily so that it helps in making a decision by mitigating the cost incurred by human inefficiency in processing information (Dunning and Wymbs 2001). We propose that:

**P6:** *Lowered transaction cost leads to more non-equity modes in Internet business era.*



### **Differing Internet Usage**

The Internet can be used in at least four different ways, i.e. conducting market research, disseminating information, improving customer relationships and selling products and services (Quelch and Klein 1996; Hoffman et al 1996; Atkearney 1999; Hamill 1997; Dutta and Segev 1999; Timmers 1999; Arnott and Bridgewater 2002). Since there is no research conducted to examine their effects on entry mode choice, we think that the effects of these four types of Internet usage on entry mode choice need to be examined. This is the key interest of the present research.

The above propositions are summarised in Table 2.5. The proposed effects of the variables on entry mode are compared with those identified in the literature, which does not investigate the impact of the Internet on entry mode choice. The sign of ‘+’ indicates a positive impact of a variable on choosing equity modes, and the sign of ‘-’ indicates a negative impact.

TABLE 2.5      PROPOSITIONS OF INTERNET USAGE ON ENTRY MODE

Key Variable		I	Sources	P	Sources
1	Firm Size	+	Buckley and Casson 1976; Kumar 1984; Cho 1985; Caves and Mehra 1986; Yu and Ito 1988; Gatignon and Anderson 1988; Terpstra and Yu 1988; Agarwal and Ramaswami 1992; Erramilli and Rao 1993; Brouthers 2002	NI	Quelch and Klein 1996; Hamill and Gregory 1997; Hamill 1997; Cartwright and Oliver 2000; Dunning and Wymbs 2001
		-	Lau, 1992; Bodur and Madsen 1993; Dalli 1994; Chetty and Hamilton 1996		
2	International experience	+	Simpson and Kujawa 1974; Sunzook 1978; Ayal and Zif 1979; Reid 1984; Denis and Depelteau 1985; Agarwal and Ramaswami 1992; Brouthers et al 1999; Brouthers 2002	-	Poon and Jevons 1997; Tiessen et al 2001; Cartwright and Oliver 2000; Dunning and Wymbs 2001
3	Special Abilities	+	Anderson and Coughlan 1987; Kogut 1989; Barney 1991; Collins 1991; Agarwal and Ramaswami 1992	+	Quelch and Klein 1996; Hamill and Gregory 1997; McCue 1998; Lituchy and Rail 2000
4	Market Potential	+	Weinstein 1977; Harrigan 1984; Choi et al 1986; Terpstra and Yu 1988; Agarwal and Ramaswami 1992; Brouthers 2002	+	Hamill and Gregory 1997; Bennett 1997; Samiee 1998; Balabanis and Vassileiou 1999; Dunning and Wymbs 2001
5	Investment Risk	-	Rugman 1979; Stopford and Wells 1972; Miller 1992; Agarwal and Ramaswami 1992	-	Bennett 1997; Dunning and Wymbs 2001
6	Transaction Cost	+	Buckley and Casson 1976; Williamson 1985; Agarwal and Ramaswami 1992; Calof and Beamish 1995; Brouthers 2002	+	Tiessen et al 2001; Dunning and Wymbs 2001

Note: NI: No Impact



## **2.9 THE IMPACT OF THE INTERNET ON ENTRY MODE PERSPECTIVES**

As we can see from the above discussion, the Internet has had impact on many elements of international business. Therefore, we must investigate its impact on entry mode from different theoretical perspectives.

### **2.9.1 The Internet and Internationalisation Process Theory Perspective**

Internationalisation process theory postulates that the more experience a firm has, the more likely it is that it will commit resources in a foreign country (Johanson and Vahlne 1977). As Terpstra and Yu (1988) argue, exposure to international operations may enable a firm to gather and assess information and to change its organisational structure so that it can adapt to new challenges (i.e. investing in other countries). According to the U-model of internationalisation process theory, the more previous international experience a firm has, the more likely it is that it will choose equity mode of entry (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977; Johanson 1990).

However, when the Internet is introduced, such previous experience may no longer be important as a source to create knowledge. Quelch and Klein (1996) argue that once firms launch their web site, they have an immediate international presence, and therefore gain international experience readily. This indicates that experience is not a prerequisite for resource commitment in a foreign country any more. Decisions on choosing equity modes are less influenced by such experience because new sources are emerging that create market knowledge in the new era (Cartwright and Oliver

2000). For example, Amazon.com was launched in 1997. Within one year, its UK web site and UK office were launched. Soon after that, the German, Canadian and Japanese web sites and regional offices were set up. If we count the number of years of previous international experience Amazon.com had before choosing an equity mode, we see that there is little correlation between previous international experience and choosing equity modes. This indicates that when using the Internet for international business, firms do not necessarily follow the successive stages, as prescribed by the U-model of internationalisation process theory. This, however, would seem closer to findings of some studies regarding to incremental or simultaneous internationalisation process in the I-model or in studies of SMEs, such as Oviatt and McDougal (1994), Lau (1992).

### **2.9.2 The Internet and Transaction Cost Analysis**

Transaction cost analysis was designed to answer why firms choose high-control modes over low-control modes in foreign markets, particularly collaboration vs non-collaboration modes (Williamson 1971; Buckley and Casson 1976). According to transaction cost analysis, firms are likely to choose high-control modes when transaction costs are high. The reason is, by choosing high-control modes, firms are able to minimise the number of transactions and thereby mitigate some of the costs incurred (Buckley and Casson 1976; Brouthers 2002). Transaction costs are high when a market is not competitive and thus the market pressure is not high enough to ensure that contracts are honoured (Williamson 1971; Hennart 1988; Erramilli and Rao 1993).



However, when the Internet is used for international business, many firms upload information onto the web. This mitigates transaction costs as the Internet network dramatically increases the amount of information available to all firms (Timmers 1999; Dunning and Wymbs 2001). In other words, information symmetry is achieved (Williamson 1985; Taylor et al 1998). In addition, the Internet permits relevant information to be obtained, distilled and transferred in a timely fashion, increasing people's ability to process information (Timmers 1999; Dunning and Wymbs 2001). Therefore, a bounded rationality can be avoided (Dunning 1985). Owing to the transparent market the Internet has created, competition has become more intense (Timmers 1999; Tiessen et al 2001). Therefore, to some extent, the Internet enables the market to monitor and enforce external agents, partners and suppliers (Hennart 1988). As described by transaction cost analysis, firms all favour non-equity modes (transaction-based). However, we have seen that since the Internet was commercialised, many firms, although using the technology for international business, continue to commit resources in foreign countries. This indicates that transaction cost analysis may lose its importance in explaining why some firms prefer non-equity modes while others do not in the era of Internet business.

### **2.9.3 The Internet and Organisational Capabilities Perspective**

Organisational capabilities perspective (Madhok 1997) views entry mode choice from a different angle. It suggests that if firms possess highly embedded capabilities, they tend to choose equity modes to gain control over the tacit advantage. However, if they do not have such capabilities, they opt for non-collaboration modes, through

which they might learn from their partners and build up their own competitiveness (Madhok 1997). Although a universal definition of organisational capabilities can not be found, several studies have examined it from different viewpoints. Hymer (1960, 1976) and Kindleberger (1969) see these abilities as resulting from possession of marketing skills, superior management techniques, or a patented technology. Caves (1971), on the other hand, regards firms as having special abilities to differentiate their products from those of their competitors. Hirsch (1976) views special abilities as the capacity to carry out R&D.

In the present study, the Internet is regarded as a new technology. Its introduction may improve some abilities that a firm possesses, such as differentiating its products from its competitors, carrying out R&D, because it represents such a rich source of information (Peng and Illinitch 1998; Cartwright and Oliver 2000). In addition, new firm capability has been created: how to use the Internet (Davis 1989; Tiessen et al 2001). Consequently, firms' abilities increase as a result of adopting the new technology. According to organisational capabilities perspective, firms will prefer equity modes over non-equity modes when they possess special abilities for higher control of the operation.

#### **2.9.4 The Internet and Contingency Theory**

Contingency theory postulates that the choice of entry modes is contingent upon the external environment (Stopford and Wells 1972; Agarwal and Ramaswami 1992; Ekeledo and Sivakumar 1998). The external environment can be examined from the



cultural and social perspective, the political and legal perspective, and the economic perspective (Ekeledo and Sivakumar 1998). It can also be examined from the market potential and the country risk perspectives (Stopford and Wells 1972; Eaton et al 1986). Contingency theory commonly focus on the impact of political environment on entry mode choice, and country risk is often used as an indicator (e.g. Hambrick and Lei 1995).

The impact of the Internet on contingency theory is mixed. On one hand, if firms decide to stay in their home country for international business, exporting through the web site, the government's attitude toward foreign investment do not seem to have any impact. On the other hand, if firms decide to invest in a foreign country, political environment will still have an impact on their investment.

#### **2.9.5 The Internet and the Eclectic Framework**

The eclectic framework states that the extent, pattern and form of international business activities will depend on three sets of advantages: organisation, location and internalisation (Dunning 1976, 1988). It seems to merge several other entry mode perspectives (Andersen 1993).

Dunning and Wymbs (2001) argue that the eclectic framework still plays an important role in the era of Internet business. First, the Internet is changing the context and scope of the core competences of firms; however such advantages are becoming a more important discriminator of strategic positions and commercial

success. Secondly, Dunning and Wymbs (2001) posit that the locational advantage of firms should be related to several issues, such as digitalisation of products and services. They also suggest that the contemporary communication infrastructure is the counterpart of the roads and rails of past generations, with the information bits equivalent to the products carried by the trucks and trains. Thirdly, with regard to transaction cost, they believe that the greatest short-term effects of the Internet are likely to be reduction of the transaction and coordinating costs of economic activity.

## **2.10 EPISTEMOLOGY**

The current entry mode studies consist of a mosaic of autonomous endeavours (Andersen 1993). Among so many theoretical perspectives, internationalisation process theory and transaction cost analysis have developed independently from each other, and Reid's (1983) contingency view has not found much favour until recently. It is contended that each of the perspectives provides some understanding of entry mode. For example, transaction cost analysis is useful in understanding the internationalisation strategies of large internationally established firms, while elements of internationalisation process and contingency theories are more appropriate for smaller firms with less previous international experience (Bell and Young 1998). However, Bell and Young (1998) argue that these approaches are myopic, in terms of method, focus and location, and have failed to broaden our understanding of the complex nature of internationalisation. The author argues that these perspectives fall short because they are all silent on the impact of new communication technologies, such as the Internet.



The Internet first emerged in the 1980s and became commercialised during the 1990s. Much like the steam engine, the telegraph, the telephone, the railroad and the high-way system, it is a facilitating technology that serves as ‘a catalyst for new business combinations, permutations and mutations’ (Wymbs 2000, p.277). For example, when the steam locomotive appeared, the speed and scope of transportation was dramatically increased. The use of steam locomotive spread rapidly, driven especially by coal-mining and other manufacturing industries. Consequently, capitalism began to grow in England in 1870s, with a drastic impact on human beings (Lord 1923). And just like them, if there are a sufficient number of users, its true economic benefit will be realised (Bernstein 1998). The Internet has served as a geometric increasing in computing power, transmission capacities and fast packet switching (Dunning and Wymbs 2001).

However, the Internet is different from the aforementioned technologies, in that ‘the facilitating infrastructure channels and nourishes E-commerce growth and the resulting superior economic performance flows back to firms embracing new business strategies, that both redefine existing markets, and create new one’ (Dunning and Wymbs 2001, p.275). For example, the Internet has given rise to cyberspace, which is unlike any other marketplace in history. In the cyberspace, in some cases, there is no physical product crossing geographic borders, no paper currency change in hands, and no tangible record of transaction (Kobrin 1999). The Internet has touched many disciplines, such as economics, political science, law, sociology and psychology (Boddewyn and Iyer 1999), as well as several functional

and professional areas where concepts, models and variables are derived from these disciplines, such as management, marketing and finance. Entry mode, inevitably, is likely to be influenced, both the process and transactions involved. In that, it poses a significant contingency for each perspective into entry mode studies. However, each of the proceeding perspectives has so far remained silent on the possible impact of the Internet. This thesis examines, therefore, the impact of this new technology, and then considers to what extent theories of entry mode should accommodate such a significant factor and to what extent this would require equally significant changes to their basic epistemology.

The inclusion of the Internet usage as a new variable in the model to examine entry mode reflects the arguments of some evolutionary epistemologists, e.g. Popper, Lorenz, and Campbell. Campbell (1988) argues that knowledge grows by a process. One direction for the course of evolution is 'forward by time'. If epistemology develops over time, so do entry mode perspectives. When they were built, the Internet had not yet emerged. Thus it is necessary to consider the impact of the new factor in the new era.

Testing entry mode perspectives against firms that use the Internet to enter foreign markets has a second implication on the methodologies on which these perspectives are built. As Campbell (1993) contends, a correct epistemology must be analytically consistent. These entry mode perspectives originated during the period of 1950s to



1980s, before the Internet existed, as we recognise it today. If they are true epistemologies, they will survive the new empirical test.

## **2.11 SUMMARY**

In this chapter, we have developed the present research questions: 1) to what extent does Internet usage influence entry modes choice; and 2) to what extent does Internet usage affect the performance of a firm? To begin with, we introduced theories of international trade and FDI as the background of entry mode studies, in order to demonstrate how they laid a solid foundation for research into entry modes. Five entry mode perspectives were discussed in detail, their key variables were identified and their impacts on entry mode discussed. The purpose was to show that none of the perspectives has considered the impact of new communication technologies on entry mode choice. Business advantages gained by the use of the Internet were reviewed to support the argument that taking Internet usage into account might improve the explanatory power of entry mode perspectives. Some propositions were constructed to address the present research question, examining how Internet usage affects entry mode choice and the impact of each key variable on entry mode choice.

## **CHAPTER THREE**

### **THE CONTEXT OF THE STUDY: HONG KONG**

#### **3.1 INTRODUCTION**

Hong Kong was chosen as the present research site since imports and exports, including re-exports, have long been of importance in Hong Kong's economy. For example, in 1999, 65% of its total industrial production was exported. With the economic structure increasingly broadened from the 1980s onwards, Hong Kong became a major financial centre. Businesses in Hong Kong became pre-disposed to international direct investment, and by 1995 Hong Kong had become the fourth largest investor in the world (for more details see the web site of [www.unctad.org/en/press/pr2699ax.htm](http://www.unctad.org/en/press/pr2699ax.htm)). Such a context can provide a rich sample of firms that use different foreign market entry modes for international business (see also Section 3.2).

However, the Asian financial crisis of 1997 was not without its negative impacts on Hong Kong's economy. GDP was cut in half in 1998; property prices as well as rents declined by 50 per cent over two years; and unemployment doubled to 5.7%. In particular, a dramatic decrease occurred in foreign trade. In order to re-invigorate the economy, as well as to increase people's confidence, the Government of Hong Kong Special Administration Region (HKSAR) ('the Government' hereafter) decided to promote e-commerce among Hong Kong firms, as this was regarded as a means of retaining economic competitiveness (see also Section 3.3).



E-commerce was widely adopted in Hong Kong as a result of the efforts of the Government, as well as an open business culture with strong Anglo-American characteristics (see also Section 3.4.). Therefore, it is suggested that Hong Kong provides a context in which there are likely to be a large number of firms, using the Internet in different ways. This variety will provide both richness and interest to the present research since the impact of Internet usage can be investigated. Last but not least, Section 3.5 shows that Hong Kong was chosen as a result of the author's possession of in-depth contextual knowledge.

### **3.2 THE IMPORTANCE OF FOREIGN TRADE AND FDI IN HONG KONG**

Hong Kong was ceded to the United Kingdom under the Treaty of Nanjing in 1842. It was soon declared a free port by the British Government. Subsequently, numerous goods and capitals were transported there from all over the world. Hong Kong has a deep natural harbour and thus the goods and capitals that poured in were used to construct warehouses and port facilities, which converted the island from a so-called 'barren island' into an entrepôt.

The importance of Hong Kong as a free port was so significant that during World War II the Japanese invaded Hong Kong in order to control a crucial transportation hub. The Japanese Occupation almost brought an end to Hong Kong's external trade. But soon after the World War II was over, the economy recovered and expanded dramatically. A more than 32-fold increase in external trade was recorded between 1947 and 1951, with an average growth rate of 35.4%. In 1951, the Korean War

broke out. North Korea was supported by the Chinese Communist Government. The United Nations established an embargo against mainland China, an important partner in Hong Kong's external trade. Thus, the Hong Kong economy was adversely affected.

Such a dramatic change forced Hong Kong to develop a new industry: light manufacturing in order to compensate. After the Korean War, great numbers of mainlanders flocked to Hong Kong, bringing with them huge amounts of capitals and technology, as well as bolstering the labour force for new industries. During the post-wars period, the Western industrial powers moved away from high-cost and labour-intensive industries into capital-intensive and technology-intensive ones. This created a good opportunity for Hong Kong to develop its export-oriented economy through light manufacturing. During the decade of 1960s, the number of factories increased by eight times. Industrial products accounted for 80% of its total exports. This represented Hong Kong's first change in economic mode. This change has been officially noted by the Government, which can be found on the web site [www.info.gov.hk/bspu/publicity/win\\_entries/web\\_99/s201/Esect1/Ehistory.htm](http://www.info.gov.hk/bspu/publicity/win_entries/web_99/s201/Esect1/Ehistory.htm). It demonstrates the significance of exports in Hong Kong's economy. Even today, Hong Kong's economy is still export-oriented. For example, in 1999, 65% of its total industrial production was exported.

Another change in Hong Kong's economy was an increasingly diversified economic structure, which enabled Hong Kong firms to invest in foreign countries directly.



The 1970's were hard for the Hong Kong economy, since manufacturing industries were undergoing extensive and rapid development in Taiwan, Singapore and South Korea. Their export volumes kept growing, and in 1976, they exceeded Hong Kong's. Furthermore, industrial nations in Europe and North America imposed quotas on cloth exports from Hong Kong. In addition, the oil crisis of 1973 crashed the stock markets and put the Hong Kong economy in jeopardy. In such critical circumstances, three diversification plans were implemented in Hong Kong: industry diversification, economic structure diversification and market diversification, which diversified the previous single-sector economic mode. Many sectors, such as finance, trade and real estate, developed rapidly to broaden the economic structure.

With the opening of the market in mainland China in 1980, the re-export trade soared together with direct investment in labour-intensive manufactories in China. As a result, the financial sector expanded and transformed Hong Kong from an industrial-oriented economy into a financial centre. With such advantages, Hong Kong investors began international expansion world-wide. For example, Hong Kong was in 1995 the fourth largest international direct investor (US\$ 25 billion) in the world, after the United States, the United Kingdom and Germany; among developing Asian countries, Hong Kong is the most important investor in the European Union, both in terms of FDI stock (US\$1.3 billion in 1994) and FDI outflows (US\$340 million on average during 1992-1994). More details can be found on the web site of [www.unctad.org/en/press/pr2699ax.htm](http://www.unctad.org/en/press/pr2699ax.htm). A place such as Hong Kong can therefore provide a rich sample of firms entering foreign markets by

different modes. This can help the present research to achieve its objective - to examine how different usage of the Internet might influence foreign market entry modes.

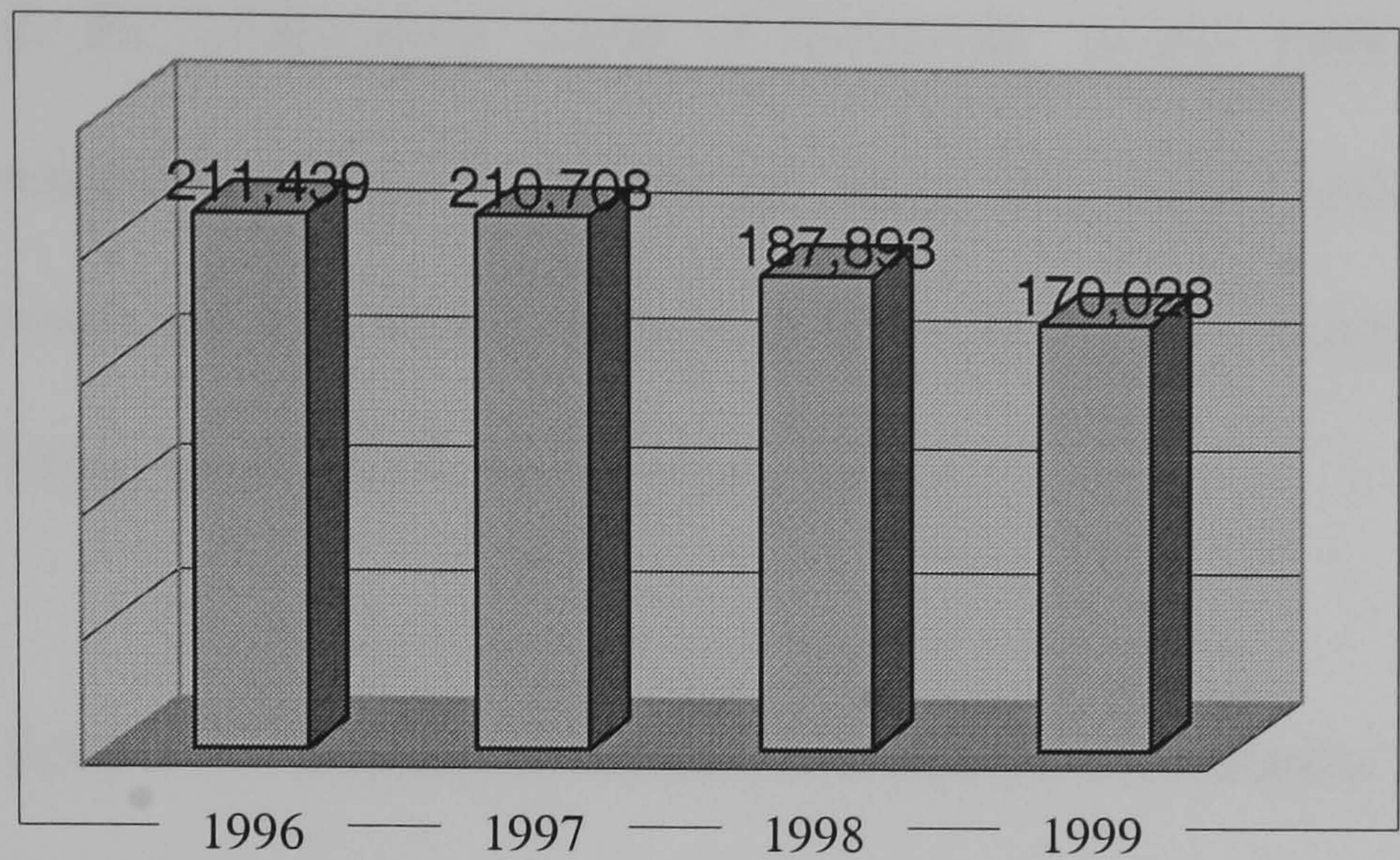
### **3.3 E-COMMERCE PROMOTED IN HONG KONG**

#### **3.3.1 The Influence of the Asian Financial Crisis**

The Asian financial crisis hit a number of countries in South East Asia in 1997. Hong Kong was no exception (Liu 1999). Currency depreciation in neighbouring countries reduced the competitiveness of Hong Kong's goods and services. Consequently, exports dropped from US\$ 211,439 million in 1996 to US\$210.708 million in 1997, to US\$187,893 million in 1998 and further to US\$170,028 million in 1999 (See Figure 4.1). Currency depreciation in neighbouring countries also slowed down intra-regional economic activities, such as trade and tourism. This affected the labour market in Hong Kong: wages were cut and unemployment reached 5% in August 1998, doubling the figure of the previous year. The volatile regional currencies led to a flight of capital from Hong Kong. The attempt of many international speculators to attack the Hong Kong currency caused the interest rate to soar. The high interest rate in turn severely depressed asset prices – property prices and rents declined by 50 percent within two years (Chwang 2000). Many businesses closed down and the confidence of both consumers and investors was shaken. Real GDP was reported to have decreased in the first two quarters of 1998. By August 1998, the Government announced its preliminary estimate of a 5% negative growth in the second quarter, following a 2.8% decline in the first quarter of 1998.



**FIGURE 3.1    EXPORTS IN HONG KONG, 1996-1999**



**Source:** Statistical Digest of Hong Kong, 2000 (In Million US\$)

The setback galvanised the Government into taking action to restore people’s confidence and increase the competitiveness of the economy. The late 1990’s was an era when information technology developed rapidly throughout the world. The application of information technology, particularly the Internet and WWW had been seen to increase the efficiency of businesses in many developed countries. Therefore, the Government decided to promote the new technology among businesses in Hong Kong.

The ‘Digital 21’ Information Technology Strategy was introduced in Hong Kong by the Information Technology and Broadcasting Bureau in late 1998. This was aimed at ‘enhancing and promoting Hong Kong’s information infrastructure and services so as to make Hong Kong a leader in the information world of 21<sup>st</sup> century’ (Digital Hong Kong for the New Millennium, 1999, p.3). The strategy received support from the Government. In his 1997 Policy Address, the Chief Executive of Hong Kong, Mr



Tung Chee-Hwa, stated his mission of making Hong Kong a leader, not a follower, in the information world of tomorrow. In the 1998 Policy Address, he further emphasised the importance of using information technology to help Hong Kong retain its competitive edge and drive its overall economic expansion (Digital Hong Kong for the New Millennium, 1999).

### **3.3.2 The Government Endeavours to Promote E-commerce**

Over the last few years, the Government of the HKSAR has put considerable effort into implementing its ‘Digital 21’ Strategy.

#### **3.3.2.1 *The SAR Government as a Leading E-commerce Participant***

The Government launched its Electronic Service Delivery (ESD) scheme in late 2000 to provide public services to the community seamlessly around the clock through the Internet and other electronic means. About 10 governmental departments and other public agencies provide services electronically, particularly through the web site of [www.gov.hk](http://www.gov.hk). The services include: 1) submission of simple tax returns and tax payments; 2) renewal of driving and vehicle licences; 3) application for business registration certificates; 4) provision of investment and business licensing advice; 5) payment of rates, government rent and water charges; and 6) job search and matching services. The ESD scheme, according to the Government, has acted as a catalyst to pump-prime the development of e-commerce in Hong Kong (HKSAR Government Pamphlet 1999).



The Government has also set in motion other initiatives to show its committed adoption of the new technology and participation in e-commerce. First, the interactive government services directory (IGSD) web site ([www.igsd.gov.hk](http://www.igsd.gov.hk)) was launched to provide public information and services electronically over the Internet in an interactive manner. The web site offers a directory of telephone numbers and web addresses and provides access to selected interactive services of the Industry Department, Labour Department and Transport Department.

Secondly, the free e-mail service scheme was launched, where Internet Service Providers and other IT-related companies participating in the scheme sponsor free electronic mail accounts for use by all Hong Kong citizens.

Thirdly, public computer facilities were installed at selected District Offices, community centres, public libraries and post offices. They allow the public to access government services and information on the internet at convenient locations.

Fourthly, local businesses were provided with assistance in the adoption of e-commerce, through the co-operation of industrial support bodies and trade and industry organisations such as the Hong Kong Productivity Promotion Council, the Trade Development Council, the Small and Medium Enterprises Centre and the Hong Kong Export Credit Insurance Department (for more details, please visit [www.tdctrade.com/sme/chinese/do3.htm](http://www.tdctrade.com/sme/chinese/do3.htm)). In addition, seminars have been organised; publicity materials have been distributed; and technical advice and practical

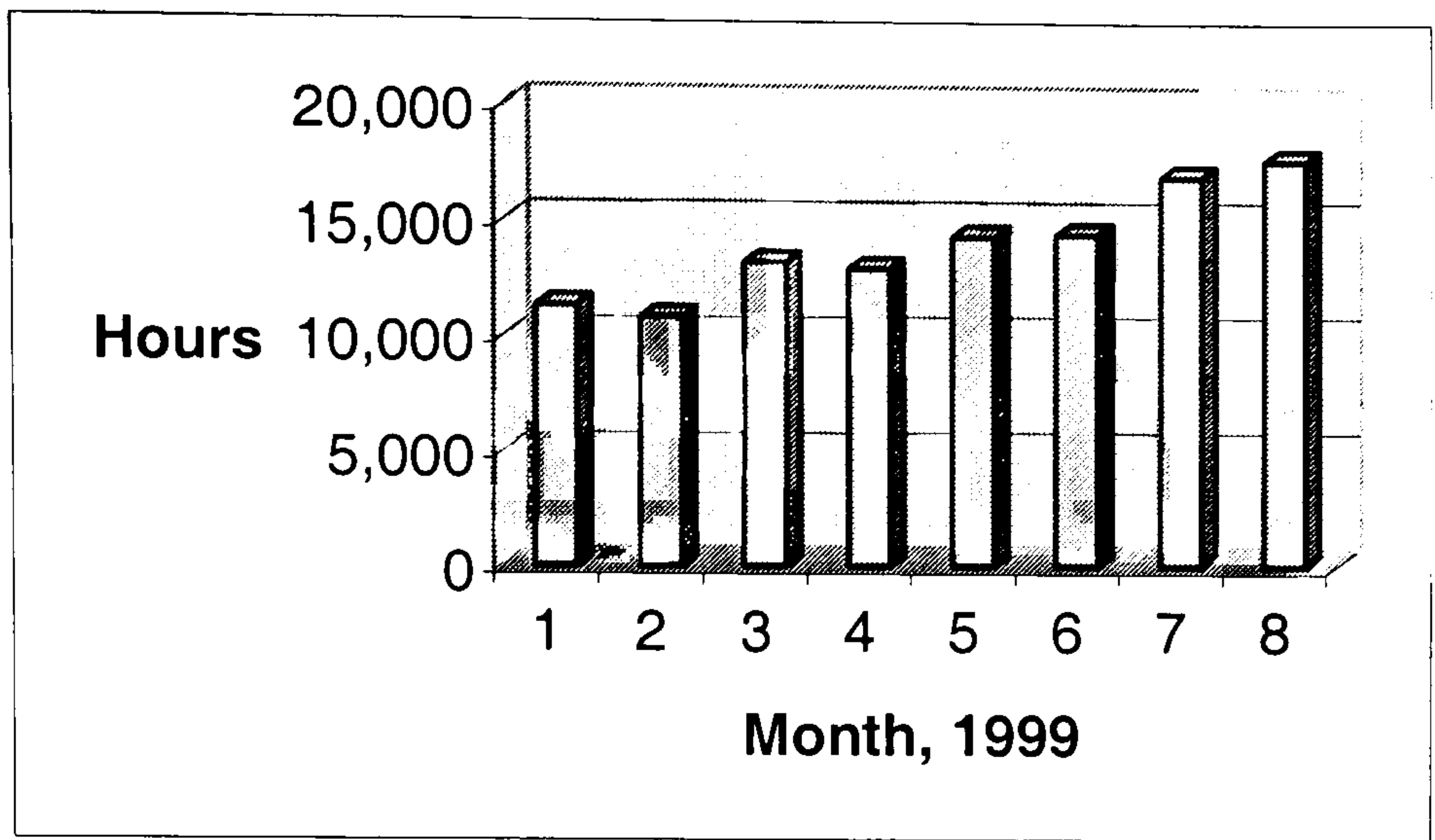
solutions have been provided for firms that intend to adopt the Internet and other information technologies for their business.

#### **3.3.2.2      *The Improvement of the E-Commerce Infrastructure***

The improvement of the e-commerce infrastructure started with the termination of the exclusive international licence held by Hong Kong Telecom. This ushered in further initiatives. Pay TV, VOD and fixed networks were introduced on the basis of fair competition among all parties, both national and international. At the same time, telecom and broadcasting networks were integrated. All these measures have made Hong Kong one of the world's wired countries, with the highest telephone density (57%, 3.7 million exchange lines), highest cell-phone penetration (46%, 3 million subscribers), and fully-digital networking. This has been recorded at the Office of the Telecommunications Authority. This has provided very fertile conditions for the development of e-commerce. The fast pace of Internet development, for example, can be seen in Figure 3.2.



**FIGURE 3.2    INTERNET ACCESS IN HONG KONG (IN 1999)**



**Source:** Official Guide to Telecommunications in Hong Kong, 1999

**3.3.2.3      *Legal Framework for E-Commerce***

The Government enacted legislation in 1999 to establish a clear legal framework that would ensure security in the conduct of electronic transactions. The legislation gave electronic records and digital signatures used in electronic transactions the same legal status as their paper-based counterparts. Consequently, a framework was established to promote and facilitate the operation of certification authorities. To enhance trust and security in the conduct of electronic transactions, the Government has begun to build up a public key infrastructure (PKI) supported by certification authorities in Hong Kong. With this PKI, local participants in electronic transactions are able to: 1) authenticate the identity of other parties to the transactions; 2) ensure the integrity and confidentiality of the information exchanged; and 3) guard against repudiation.

Following this, in 1999 the Post Office in Hong Kong started to provide a public certification service for electronic transactions. The e-commerce certifying system, the 'Hong Kong Electronic Certificate', was officially introduced in 2000. The purpose is to control the creditability of the merchants doing business on the web and provide a legally safe environment for online customers. Security is assured in industries such as banking, finance, communication, entertainment, education and medical services. According to the new law governing e-commerce, any company that intends to do business on the Internet is required to obtain such a certificate, as stated on the official web site of [www.info.gov.hk/gia/general/200001/17/0117191.htm](http://www.info.gov.hk/gia/general/200001/17/0117191.htm). This means online consumers may get information from the Government about merchants and businesses selling products or services on the web.

#### **3.3.2.4      *Chinese Language Interface***

English and Chinese<sup>1</sup> are the official languages used in Hong Kong. English is more popular in business and e-commerce applications, and relevant technologies are accessed more easily in English. However, since most people living in Hong Kong are Chinese, problems related to the use of Chinese must be solved. It was found in Hong Kong that different computer systems used different coding schemes to process Chinese characters<sup>2</sup>; these schemes may not be compatible with each other, resulting in the distortion of Chinese characters during the exchange of data between systems. Therefore, it was necessary to implement a common standard so that

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<sup>1</sup> Although Cantonese is the dialect spoken in Hong Kong, it is simply and commonly referred to as Chinese.

<sup>2</sup> Traditional Chinese characters are used in Hong Kong and Taiwan; simplified Chinese characters are used in China and Singapore.



information could be reliably exchanged in Chinese and electronic transactions could be facilitated among them.

As a first step, under the "Digital 21" Information Technology Strategy, the Government established an open and common Chinese language interface for Hong Kong. The pivotal elements of the interface are the adoption of the ISO 10646 standard and the development of the Hong Kong Supplementary Character Set (HKSCS). ISO 10646 is an international coding standard developed under the aegis of the International Standardisation Organisation (ISO) for the processing and exchange of electronic information. It embraces characters used in major languages, including traditional and simplified Chinese characters. By adopting a common international coding standard, the problems arising from the use of different Chinese coding schemes can be resolved. Different computer systems will be able to accurately process and display Chinese information received during electronic communication.

In collaboration with the Chinese Language Interface Advisory Committee (CLIAC), the Government published the HKSCS in 1999. The HKSCS contains Chinese characters that are specific to Hong Kong. With the adoption of the HKSCS, the exchange of data in Chinese between the Government and the public becomes more effective and accurate. The latest version of HKSCS is HKSCS-2001, published in December 2001. The Government submitted HKSCS-2001 to the ISO

for inclusion in the ISO 10646, and has been actively taking part in the development of the international coding standard.

### **3.4 SOME CHARACTERISTICS OF ANGLO-AMERICAN BUSINESS CULTURE**

Hong Kong was a British colony for almost one hundred years, during which time it was under the influence of Anglo-Saxon business culture. Even today when Hong Kong is no longer a colony, the Anglo-Saxon legacy still remains. Examples can be found in business hours and the Common Law legal system. Most companies in Hong Kong and the Government open at 9 in the morning and close at 5 in the afternoon, while in China 8 in the morning and 5 or 5:30 in the afternoon. The unchanged colonial legal system helps to preserve old business in Hong Kong. The Internet is mainly an American phenomenon; the Internet-based market is dominated by the United States, which accounts for over 90% of commercial transactions, 62% of web sites and over 50% of the world's Internet users (NUA 1998). Sharing some common characteristics of business culture with the UK and US, following the boom in e-commerce there, Hong Kong began to accommodate e-commerce in 1995. A large number of local firms began to adopt e-commerce in variation.

In a report completed in May 2000 by IBM Hong Kong, out of 207,286 firms, 41.6% had adopted e-commerce. Of these, 28.7% used email for communication; 8.7% had their own web sites; 3.9% had online transaction facilities and 0.3% used e-business in a fully-integrated way (Report of Hong Kong Productivity Council,



May 2000). A newspaper report also showed that foreign firms were trying to enter the Hong Kong market either by providing e-commerce services or setting up e-businesses. For example, Business Pace, a European Internet company, set up a B2B web site, called Business Pace Asia in March 2000 in order to introduce the Internet transaction experience to Hong Kong (Hong Kong Economy Daily, 2000).

### **3.5 FURTHER IN-DEPTH CONTEXTUAL KNOWLEDGE**

In addition to the descriptive data presented earlier covering why Hong Kong was chosen as the research site, the author has first hand knowledge of the context. Where further information was needed regarding the contextual setting for this research, then contacts in Hong Kong were pivotal. Since the author also speaks English, Cantonese and Mandarin<sup>3</sup>, there were no potential barriers to understanding or to information gathering which could easily have occurred if the present researcher had only been a native English speaker.

### **3.6 SUMMARY**

This chapter has presented four major reasons why Hong Kong has been chosen as the research site. First of all, foreign trade and foreign direct investment is important in Hong Kong's economy and such a place can provide a rich sample of firms that enter foreign markets through different modes. Secondly, after the 1997 financial crisis in Asia slowed down economic development in Hong Kong, the measures taken by the Government in order to re-invigorate the foreign-trade-oriented

economy was to actively promote e-commerce among local firms. Thirdly, owing to some Anglo-American characteristics of its business culture, e-commerce has been widely adopted. Wide varieties of firms have been found in Hong Kong who adopted the Internet at different levels to achieve their different internationalisation objectives. Fourthly, the present researcher had excellent access and fluency of dialogue in Hong Kong gives an ability to converse in three relevant languages and being a resident of Hong Kong.

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<sup>3</sup> Mandarin is the dialect spoken in China, as well as in Taiwan and Singapore. It is used in Hong Kong to communicate with businessmen coming from elsewhere in the Chinese-speaking world.



## **CHAPTER FOUR**

### **RESEARCH METHODOLOGY**

#### **4.1 INTRODUCTION**

A primary question for all researchers is to decide whether to adopt a qualitative or quantitative approach. Given the context and nature of the present research, a quantitative approach was considered the most appropriate so that variation across a range of organisations could be investigated. However, due to the lack of existing literature on measuring Internet usage, pilot case studies were conducted to help construct measures de novo. Section 4.2 explains this combination of pilot case studies and a survey in greater detail. The following sections introduce in detail how the survey was carried out. Section 4.3 explains how the variables were operationalised based on established measures used in entry mode studies. Section 4.4 shows how the sample was identified and selected, and describes how the sample was designed to achieve the present research objectives. Section 4.5 explains how the questionnaire was designed, and Section 4.6 discusses how it was administered in the mail survey.

#### **4.2 RESEARCH METHODOLOGY**

Generally, the choice of research strategy depends on three factors: the type of research questions, the control an investigator has over actual behavioural events and the focus on contemporary versus historical phenomena (Yin 1993). The present

research examines to what extent different uses of the Internet have impacted entry mode choice and to what extent they have impacted the performance of firms. Given the present research questions, a researcher has to make some broad decisions and a number of assumptions about how best to frame the present research and how to frame the data. The obvious first choice concerns whether to explore just one, or perhaps a small number of companies in depth, or whether to investigate a broader range of organisations in less depth, with a view to interrogating greater potential variation. This is a classic decision which every researcher has to make, unless they decide to opt for a mixed approach and to triangulate the data.

Whilst qualitative data can reveal richness and texture, and can easily incorporate a temporal dimension (Pettigrew 1988), showing how changes occurred over time, they can only usually explore a very small number of cases in the trade-off between depth and breadth. However, a second use of qualitative data is to provide, by means of an in-depth pilot study, sets of factors or variables which can be examined subsequently in a more extensive and quantitative study – this is the role of the case as validation for subsequent questions asked (Creswell 1995). This approach has been widely adopted in international business studies such as Peng and Luo (2000). Accordingly, the present study began with some pilot studies, followed by a survey. This is deemed appropriate in the absence of secondary data (Fowler 1993).

Following the pilot case studies, a mail survey was adopted. There are several reasons for using a mail survey. First, it is a widely used method for obtaining data



from the industrial population (Forsythe 1977; Jobber and O'Reilly 1996). Secondly, questioning knowledgeable managers has proved to be the most efficient and economic way of collecting data (Green et al 1988). Thirdly, because respondents answer at their own convenience, there is no need to set up interview appointments. In interviews bias could sometimes occur due to inappropriate questions being raised, as shown on the web site of [www.b2bmrc.com/advantages.htm](http://www.b2bmrc.com/advantages.htm). Finally, it is an efficient method for obtaining data from a large sample (Jobber and O'Reilly 1996).

However, there are several issues concerning a mail survey that must be noted. These issues have been taken into consideration in the present research. First, low response rate may be a serious problem. In order to improve the response rate, mailings were sent to firms in Hong Kong twice, with five weeks in between (Heberlein and Baumgartner 1978; Brouthers 2002); all addresses on the out-going envelopes were hand-written to attract the attention of managers (Hegelson 1994); a cover letter was tailor-made and signed for each (McCormack and Hill 1997) and the reply envelope was self-address and pre-stamped (rather than franked) (Jobber and O'Reilly 1996). Secondly, the survey cost may be high (Yu and Cooper 1983). This was not a problem in the present research since the author received funding to cover the postage from the department where she was studying. Thirdly, it was clearly stated in the cover letter that the present research was purely academic, under the direction of two British professors (Heberlein and Baumgartner 1978).

## **4.3 OPERATIONALISATION OF VARIABLES**

### **4.3.1 Dependent Variables**

The present research focuses on two dependent variables, entry mode choice and the performance of firms. These were identified both from the literature and from the pilot case study.

#### **Entry Mode**

Entry modes have been studied for a long time (Zaby 1996). In some studies, respondents were asked to identify specifically which of the entry modes were adopted from among exporting, licensing, franchising, joint venture, wholly owned subsidiary and acquisition. For example, Li and Guisinger (1991) identified new ventures, joint ventures and acquisitions and studied their failure rate. Kogut and Singh (1988) investigated the impact of national culture on joint ventures, acquisitions and Greenfields. Woodcock et al (1994) examined the relationship between ownership entry modes and performance of joint ventures, acquisitions and new ventures.

However, in other studies, entry modes have been roughly classified into two groups, contrasted to address a particular research question, e.g. equity and non-equity modes (Kwon and Hu 1995) or collaboration and non-collaboration modes (Shrader 2001). According to Root (1987), exporting and licensing are considered non-equity modes simply because equity investment is not involved in these modes, while joint venture and wholly-owned subsidiary are equity modes. In Shrader



(2001), joint venture and mergers are collaboration modes while wholly-owned subsidiary are non-collaboration modes.

In the present research, both approaches have been used. First, the main objective of the present research is to investigate whether the Internet influences entry mode choice between investing in a foreign country (equity modes) or staying in the home country (non-equity modes). Therefore, respondents were asked whether they have opened new operations in foreign countries since the Internet was launched. Secondly, in the questionnaire, in order to collect data on whether firms choose to collaborate, they were asked to state explicitly what specific mode it was, a joint venture or wholly-owned subsidiary. It is worth noting that a third choice, 'If other, please specify' was also offered to respondents, who did not feel that any of the aforementioned categories accordingly reflected the mode that the firm chose (Kim and Hwang 1992).

### **Performance**

The second dependent variable used in the present research is the performance of firms. Here, two types of performance are examined, the achievement of a web site and the performance of a firm. Any change in the degree of internationalisation the Internet creates is considered in the present research as the achievement of a web site (ACHIEVEMENT). Internationalisation is measured in at least five different ways in the existing literature. First, it is measured by the percentage of foreign sales compared to the total sales it obtains (e.g. Daniels and Bracker 1989; Geringer and

Woodcock 1989; Stopford and Dunning 1983). Secondly, Caves (1982, 1988) notes that R&D activities predict the rise of multinational enterprises (MNEs). Third, advertising intensity is suggested as another measure in Caves (1982), Keown et al (1989), and Capon et al (1990). Fourth, export sales as a percentage of total sales is reported in Sullivan (1994). Fifth, Eppink and Van Rhijin (1988) suggested estimating the degree of internationalisation in terms of foreign profits as a percentage of total profit.

In the present research, the first and fourth measurements were adopted for two reasons. First, the second and third measures are not a good measure for the present research because not all firms, particularly service firms, own their own R&D departments, and not all firms spend money on advertising, all of which would result in poor statistical significance. Secondly, it is difficult to obtain relevant information for the fifth measure because managers would be unwilling to disclose such data (Matsuno et al 2002). Accordingly, ACHIEVEMENT in the present research was measured in terms of any growth or decrease in foreign sales and growth or decrease in foreign customers obtained after the Internet has been adopted in the firm. This was considered to be the best surrogate measure of performance given the difficulties of direct measurement, conflicting views over what might constitute performance and difficulties in obtaining reliable data.

The second aspect of performance relevant to the present research is the performance of a firm. There is wide literature on the performance of firms, see for



example, Holzmuller and Kasper (1991), Cavusgil and Zou (1994), Diamantopoulos and Schlegelmilch (1994), Brouthers (1998) and Zou et al (1998). Performance can be measured by the actual performance indicators of firms (Holzmuller and Kasper 1991; Yu and Ito 1988) as well as by managers' perceptions (Cavusgil and Zou 1994; Brouthers 2002). In the present research, perceptual performance is adopted because managers are in a position to judge the performance of the firm (Zou et al 1998; Brouthers 2002). The reasons why the actual performance indicators, such as financial indicators were not considered are two-fold. First, researchers have discovered that managers are unwilling to release such information (e.g. Matsuno et al 2002). Secondly, the focus of the present research is on the impact of Internet usage on performance, rather than on the efficiency of the use of the Internet. There is no need to obtain accurate financial indicators. The performance of a firm was dissected into three dimensions (see Zou et al 1998). These three dimensions are to what extent: 1) the firm has been very profitable; 2) the firm has generated a high volume of sales; and 3) the firm has achieved rapid growth. All of them were used in the present research.

#### **4.3.2 Independent Variables**

##### **Firm Size**

Size of firms is measured in different ways in the existing literature. One of the most popular approaches is to consider the number of full-time employees in a firm (Norburn and Birley 1986; Gatignon and Anderson 1988; Erramilli and Rao 1993; Bradley and Gannon 2000; Brouthers 2002). A second is to look at the gross sales

volume obtained in the preceding month or year (Kogut and Singh 1988; Yu and Ito 1988; Kimura 1989; Erramilli 1989; Agarwal and Ramaswami 1992, Li 1995; Bradley and Gannon 2000). A third popular measure is to look at total assets of a firm (Dubin 1975; Kogut and Singh 1988; Yu and Ito 1988).

In the present research, the first two measures have been adopted. These two measures, according to Cavusgil and Zou (1994) and Agarwal and Ramaswami (1992), are highly correlated. In other words, both measures are good indicators of firm size. The third one was not adopted because it is difficult to obtain standardised information about foreign subsidiaries or joint ventures in foreign countries firms own since accounting evaluation systems vary from countries to countries. It is coded in the present study as SIZE.

### **Previous International Experience**

Previous international experience refers to how long the firm has been conducting international business (Kwon and Hu 1995; Li 1995; Barkema et al 1996; Brouthers et al 1999; Brouthers 2002). It is measured in terms of the number of years it has been involved in international business (Kwon and Hu 1995; Li 1995; Barkema et al 1996; Brouthers et al 1999; Brouthers 2002). In other studies, it is also measured according to what percentage foreign sales are of the total (Agarwal and Ramaswami 1992; Kwon and Hu 1995; Li 1995; Barkema et al 1996; Brouthers et al 1999; Brouthers 2002), and the number of foreign markets in which firms operate (Cavusgil and Zou 1994; Zou et al 1998). In the present research, the variable is



treated as a dummy variable. The reason is that some firms did not have any foreign sales or their products and services were not sold in any foreign country before the Internet was adopted. To capture the true benefit of the new technology, a dummy variable was created – whether or not a firm had any foreign customers before the advent of the Internet. It is coded as EXPERIENCE.

### **Special Abilities of Firms**

In the present research, special ability refers to any unique ability or competitiveness a firm has in using the Internet. As discussed in Section 2.8, we argue that the special abilities of a firm do not decrease with the introduction of the Internet. On contrary, its usage can be positively associated with some distinctive abilities of firms (Tiessen et al 2001), such as how to use the Internet to build their competence. It is found that the higher the computer competence, the more confidence a firm will have in doing international business (Davis 1989). Special abilities are measured in terms of managers' perception of firms' technological ability, managerial ability and financial ability to handle international expansion (Agarwal and Ramaswami 1992; Agarwal 1994; Brouthers et al 1999).

### **Market Potential**

Conventionally market potential has been treated as exogenous, and thus measured using demographic indicators such as GDP, literacy rate, urban population etc in the host market (e.g. Goodnow and Hansz 1972). In the present research, since a large number of firms in Hong Kong have the same target markets, (i.e. North America

and Western Europe), which would give little variation if such an approach was adopted. Therefore, managers' perceptions of market potential have been employed. This type of measurement has been used extensively in many studies (Bilkey and Tesar 1977; Kedia and Chokar 1986; Agarwal and Ramaswami 1992; Li 1995) and has been confirmed to have impact on the extent of firms' international involvement (Bilkey and Tesar 1977; Kedia and Chokar 1986, as cited in Calof and Beamish 1995). It should be noted that the same scale in different responses may indicate different levels of market potential, because managers have different experiences and levels of knowledge about international business and the Internet, and may have individual biases (Agarwal and Ramaswami 1992). Nevertheless, wide support can be found in the existing literature from the organisational behaviour literature on decision-making, for choosing this type of measurement (Cyert and March 1963). Therefore, it is considered appropriate to use a perceptual measure for market potential despite its potential limitations.

In this research, market potential is measured in terms of perceived potential in the target market (Agarwal and Ramaswami 1992; Brouthers et al 1999; Brouthers et al 2000), perceived customer acceptance of Internet-business in the target market (Agarwal and Ramaswami 1992; Brouthers et al 1999; Brouthers et al 2000) and perceived firms' acceptance of Internet-business in the target market (Agarwal and Ramaswami 1992; Brouthers et al 1999; Brouthers et al 2000).



### **Transaction Cost**

Measuring transaction cost is controversial, since costs are difficult to estimate (Buckley 1989). However, researchers have recommended the measurement of transaction costs with the cost of making and enforcing contracts in a foreign country (Dunning 1988). They have been operationalised in some studies (e.g. Bilkey and Tesar 1977; Kedia and Chokar 1986), by interpreting a manager's perception of them, and his perception of risk of dissipation of proprietary knowledge and of deterioration of product quality (Agarwal and Ramaswami 1992; Brouthers et al 1999). The present research thus utilises these measures of transaction costs.

### **Internet Usage**

According to the existing literature, there are broadly four identifiable types of usage of the Internet (Quelch and Klein 1996; Hoffman et al 1996; Atkearney 1999; Hamill 1997; Dutta and Segev 1999; Arnott and Bridgewater 2002).

First, some firms use the Internet as a market research tool (Quelch and Klein 1996) or for 'marketing intelligence' (Hamill 1997, p.308). In this way, it is used to collect information about competitors, for product development, for sales promotion etc.

Secondly, some firms use it to disseminate rational information about themselves, and products and services provided (Quelch and Klein 1996; Hoffman et al 1996; Atkearney 1997; Hamill 1997; Dutta and Segev 1999; Arnott and Bridgewater

2002). In so doing, a firm's clients and customers can easily find what they are looking for. Firms can save resources by not having to print catalogues, and customers save time because of the ease of long distance communication.

Thirdly, some firms use the Internet to improve customer relationships (Dutta and Segev 1999; Arnott and Bridgewater 2002). Traditionally, customers are contacted by various means such as telephone, mail and fax; all of these perform marketing communication functions separately: to inform customers of some special promotion, to remind them of the location of the service, or even to persuade them to patronize the firm (Claw et al 1997). However, the Internet is different. It has the potential to change radically the way firms contact their customers, by blending together publishing, real-time communication broadcast and narrowcast (Hoffman et al 1996). For example, customers can have their questions answered and solved on the web (Atkearney 1997).

Finally, other firms use the Internet to sell products or services directly to customers, by providing online payment facilities, or to deal with customers through online retailers or wholesalers (Quelch and Klein 1996; Atkearney 1997; Hamill 1997). Therefore, respondents are asked whether the Internet is used to collect information, to improve relationship with customers, to disseminate information, or to sell products and services on line.



Table 4.1 presents an overview of how the variables are measured in the present research. Sources are given in the table.

**TABLE 4.1      OPERATIONALISATION OF VARIABLES**

Variables	Measures	Sources
Size of Firms	Full-time employment	Norburn and Birley 1986; Gatignon and Anderson 1988; Erramilli and Rao 1993; Bradley and Gannon 2000; Brouthers 2002
	Gross sales volume	Yu and Ito 1988; Kogut and Singh 1988; Kimura 1989; Erramilli 1989; Agarwal and Ramaswami 1992, Li 1995; Bradley and Gannon 2000
Ability	Training programme	Anderson and Cough 1987; Kogut 1989; Collins 1991; Agarwal and Ramaswami 1992; Brouthers et al 1999
	Well-structured business	Anderson and Cough 1987; Kogut 1989; Collins 1991; Agarwal and Ramaswami 1992; Brouthers et al 1999
	Technological ability	Collins 1991; Agarwal and Ramaswami 1992; Brouthers et al 1999
	Managerial ability	Davidson 1980; Anderson and Cough 1987; Kogut 1989; Collins 1991; Agarwal and Ramaswami 1992; Brouthers et al 1999
	Financial ability	Anderson and Cough 1987; Kogut 1989; Collins 1991; Agarwal and Ramaswami 1992; Brouthers et al 1999
Experience	Number of years in international business	Kwon and Hu 1995; Li 1995; Barkema et al 1996; Brouthers et al 1999; Brouthers 2002
	Number of foreign countries operations are	Kogut and Singh 1988; Agarwal and Ramaswami 1992; Brouthers et al 1999; Kwon and Hu 1995
	Foreign sales as a total percentage of the total	Kwon and Hu 1995; Li 1995; Barkema et al 1996; Brouthers et al 1999; Brouthers 2002

<b>Transaction Cost</b>	Cost of making contracts	Williamson 1971 1981 1985; Bilkey and Tesar 1977; Dunning 1977; Buckley 1989; Agarwal and Ramaswami 1992; Brouthers et al 1999
	Cost of enforcing contracts	Williamson 1971 1981 1985; Bilkey and Tesar 1977; Dunning 1977; Buckley 1989; Agarwal and Ramaswami 1992; Brouthers et al 1999
	Misuse of know-how	Agarwal and Ramaswami 1992; Chen and Chen 2002; Brouthers et al 1999
<b>Market Potential</b>	Perceived potential in target market	Bilkey and Tesar 1977; Kedia and Chokar 1996; Agarwal and Ramaswami 1992; Li 1995, Chen and Chen 2002
	Customer acceptance in the target market	Bilkey and Tesar 1977; Kedia and Chokar 1996; Agarwal and Ramaswami 1992; Brouthers et al 1999; Brouthers et al 2000
	Firms acceptance in the target market	Bilkey and Tesar 1977; Kedia and Chokar 1996; Agarwal and Ramaswami 1992; Brouthers et al 1999
	Host government acceptance towards Internet business	Goodnow and Hensz 1972; Agarwal and Ramaswami 1992; Brouthers et al 2000
<b>Entry Modes</b>	Equity Vs Non-equity Modes	Derived from Erramilli 1989; Woodcock et al 1994; Kwon and Hu 1995; Brouthers 2002
	Collaboration Vs Non-collaboration Modes	Anderson and Gatignon 1986; Anderson and Coughlan 1987; Gatignon and Anderson 1988; Klein et al 1990; Andersen 1997; Bell and Young 1998; Shrader 2001



Use of the Internet	For product development	Quelch and Klein 1996; Hoffman et al 1996; Atkearney; Hamill 1997; Bloch et al 1998
	To find out customers	Hoffman and Novak 1996a 1996b; Quelch and Klein 1996; Hoffman et al 1996; Atkearney; Hamill 1997; Bloch et al 1998; Mahadevan 2000
	To find out competitors	Quelch and Klein 1996; Hoffman et al 1996; Atkearney; Hamill 1997; Bloch et al 1998; Mahadevan 2000
	To provide customer services on the web	Quelch and Klein 1996; Hoffman et al 1996; Atkearney; Hamill 1997; Bloch et al 1998; Dutta and Segev 1999; Mahadevan 2000; Arnott and Bridgewater 2002
	To contact customers via email	Verity and Hof 1994; Sterne 1995; Quelch and Klein 1996; Hoffman et al 1996; Bloch et al 1998; Atkearney; Hamill 1997; Dutta and Segev 1999; Arnott and Bridgewater 2002
	To receive feedback via email	Sterne 1995; Quelch and Klein 1996; Hoffman et al 1996; Atkearney; Hamill 1997; Bloch et al 1998; Dutta and Segev 1999; Arnott and Bridgewater 2002
	To appoint web-based service personnel	Verity and Hof 1994; Sterne 1995; Quelch and Klein 1996; Hoffman et al 1996; Atkearney; Hamill 1997; Bloch et al 1998; Dutta and Segev 1999
	To post information about the company	Quelch and Klein 1996; Hoffman et al 1996; Atkearney; Hamill 1997; Bloch et al 1998; Mahadevan 2000; Arnott and Bridgewater 2002
	To post information about products and services	Ellsworth and Ellsworth 1996; Hoffman et al 1996; Quelch and Klein 1996; Atkearney; Hamill 1997; Dutta and Segev 1999; Peterson et al 1997; Mahadevan 2000; Arnott and Bridgewater 2002
	To promote the company's Image	Sterne 1995; Quelch and Klein 1996; Hoffman et al 1996; Atkearney; Hamill 1997; Peterson et al 1997; Bloch et al 1998; Arnott and Bridgewater 2002
	Online sales	Quelch and Klein 1996; Hoffman et al 1996; Atkearney; Hamill 1997; Bennett 1997

<b>Performance</b>	Increase in foreign sales	Stopford and Dunning 1983; Daniels and Bracker 1989; Geringer and Woodcock 1989
	Increase in foreign customers	Derived from Stopford and Dunning 1983; Daniels and Bracker 1989; Geringer and Woodcock 1989
	Increase in investment in Internet business	Derived from Caves 1982, 1988; Holzmuller and Kasper 1991; Diamantopoulos and Schlegelmilch 1994; Li 1995; Sullivan 1994
	Profitability	Holzmuller and Kasper 1991; Diamantopoulos and Schlegelmilch 1994; Cavusgil and Zou 1994; Zou et al 1998; Bridgewater and Arnott 2000
	High foreign sales volume	Holzmuller and Kasper 1991; Diamantopoulos and Schlegelmilch 1994; Cavusgil and Zou 1994; Zou et al 1998; Bridgewater and Arnott 2000
	Rapid growth	Cavusgil and Zou 1994; Zou et al 1998; Brouthers 2002; Matsuno 2002
<i>Investment Risk</i>	<i>Published risk indicator</i>	<i>Bilkey and Tesar 1977; Kedia and Chokar 1986; Agarwal and Ramaswami 1992; Li 1995; Pan 2002</i>

### 4.3.3 Why Investment Risk was Omitted in the Questionnaire

Investment risk includes the risk that a host government might interfere with the repatriation of profits and the control of foreign assets (Agarwal and Ramaswami 1992). In the existing literature, there are two types of measurement for investment risk. First, the general stability of the political, social, and economic conditions in a particular country is seen as good indicators for investment risk. There are some organisations such as World Bank that publish investment risk indicators every year. These indicators have been used in some studies (e.g. Pan 2002). Secondly, the perception of managers is also used with regards to perceived change of a host government's attitude towards the investing firm and the industry (Brouthers et al 2000; Young 2001), perception of the host government's policies towards



conversion and repatriation of profits, and perceived risk of expropriation of assets (Agarwal and Ramaswami 1992; Brouthers 2002). The present research set out to use the first approach. Therefore, investment risk was omitted from the questionnaire.

## **4.4 SAMPLING**

### **4.4.1 Sampling Frame**

Given the present research aim, the first sampling choice was obviously to choose firms that use the Internet to achieve their different international expansion objectives. As discussed in Chapter 3, Hong Kong is an ideal place to conduct the present research. The sample was procured from two sources. First, there are a large number of firms listed on the web site [www.yahoo.com.hk](http://www.yahoo.com.hk). They are listed according to the industry they operate in. Because firms need to pay for the service provided by [www.yahoo.com.hk](http://www.yahoo.com.hk), most information disclosed by firms is believed to be trustworthy, including the postal address, telephone number and the contact person. The second source is a directory, The Hong Kong Business Web Directory 2000 (referred to simply as 'the Directory' hereafter), published by the Hong Kong Business Information Centre. The Directory is believed to be ideal for academic research for two reasons. First, it is compiled by the Hong Kong Business Information Centre, which is a publicity department of the Hong Kong Trade Development Council. The major purpose in compiling the Directory has been to serve 'as a valuable guide to consulates, libraries, trade and industrial organisations as well as governmental departments who wish to promote and maintain a comprehensive

reference for their trade practice' (The Hong Kong Business Web Directory 2000). It can therefore be concluded that information disseminated in the Directory is reliable. Secondly, the information contained in the Directory is compiled from data supplied by the firms themselves, including a brief introduction to the company, its address, telephone and fax number, and a contact person.

The choice of industries considered in the present research is of importance. There are about 40 industries and roughly 4,000 firms listed on [www.yahoo.com.hk](http://www.yahoo.com.hk), and 18 industries and about 2,000 firms in the Directory. Owing to time and financial constraints, it would be impossible to send questionnaires to all 6,000 companies. Therefore, only 3 industries were chosen, a manufacturing industry and two service industries. They are: the textile, apparel and leather goods industry; the transportation industry and the travel and hotel industry. They were chosen for three reasons.

First, findings in the pilot case studies showed that the impact of the Internet on the travel and manufacturing industries was immense (see Chapter 5 for more details). This is consistent with a report in the Financial Times (1999). These industries therefore represent a spectrum in which the impact of different uses of the Internet on international business is significant.

Secondly, the textile, apparel and leather goods industry is the forerunner in domestic exports of manufacturing goods in Hong Kong, and has been for more than



a decade. Similarly, the transportation and the travel and hotel industries have been the top two for the export of services in Hong Kong, also for over a decade (Hong Kong Annual Digest of Statistics 2001) (see Table 4. 2). Any change in the domestic export leaders will reflect changes in other industries. Thirdly, the number of firms in the textile, apparel and leather goods industry on [www.yahoo.com.hk](http://www.yahoo.com.hk) and in the Directory is greater than those in the transportation and the travel and hotel industries individually. In order to achieve a better balance between the number of firms in the manufacturing and service industries, only one manufacturing industry was chosen, while two service industries were chosen.

**TABLE 4.2      EXPORTS OF DOMESTIC MANUFACTURED GOODS AND SERVICES BY INDUSTRIAL ORIGINS AND COMPONENTS IN HONG KONG (MILLION US DOLLARS, AT CURRENT MARKET PRICES)**

<b>Manufacturing</b>	<b>2000</b>	<b>Service</b>	<b>2000</b>
Textile, apparel and leather goods	86,968	Transportation	118,460
Machinery, equipment, apparatus parts and components	36,994	Travel and Hotel	58,392
Electrical and electronic products	14,992	Financial	29,046
Paper and paper products	6,895	Insurance	3,917

**Source:** Hong Kong Annual Digest of Statistics 2001

#### **4.4.2 Sampling Size**

Any decision on sample size should be made to meet both theoretical and statistical requirements, and to avoid practical limitations (Chen 1999). On [www.yahoo.com.hk](http://www.yahoo.com.hk), there are 106 firms listed in the textile, apparel and leather goods industry, 52 firms in the transportation industry, and 130 firms in the travel and hotel industry, with respectively 331, 60 and 73 firms in the Directory. The total population is 752 firms. All 752 firms were screened to meet two requirements. First, firms surveyed must be involved in international business. Secondly, they must have a Hong Kong postal address. It was discovered that 725 firms met the requirements. Accordingly, these 725 firms were surveyed in the present research, as shown in Table 4.3. 156 firms were selected for the pilot survey; and the remaining 569 firms were included in the mail survey. For a field study in industrial marketing, the typical response rate is 20% (Jobber and O'Reilly 1996). With a 20% response rate, there would be 113 observations for data analysis, which meets the required statistical significance (Hair et al 1995). However, a lower response rate might occur, based on previous studies that were conducted among Hong Kong manufacturers. They have shown that similar mail surveys involving local manufacturers resulted in response rates ranging from five per cent (Davies 1993; Chan and Ellis 1998) to 15 per cent (Davies et al 1995; Wong and Leung 1994).



**TABLE 4.3      SAMPLE FRAMING AND SIZE**

Industries	Populations	Sample		
		Total	Pilot Survey	Survey Sample
Textile, Apparel and Leather Goods	437	420	52	368
Transportation	112	107	52	55
Travel and Hotel	203	198	52	146
Total	752	725	156	569

**Source:** [www.yahoo.com.hk/Business\\_and\\_Economies/Companies](http://www.yahoo.com.hk/Business_and_Economies/Companies) and The Hong Kong Business Web Directory 2000

**4.4.3      Sampling Selection**

The pilot case studies were carried out in 4 randomly chosen firms from the three industries. Once the pilot case studies were completed, 156 firms were selected for the pilot survey from the 725 firms. 52 firms were selected for each industry, which made up of 156 firms in total. The remaining 569 firms were targeted in the mail survey at the final stage of data collection.

**4.5      QUESTIONNAIRE DESIGN**

There has not yet been much research, particularly empirical research, conducted to discover the effects of different uses of the Internet on entry mode choice and the performance of a firm. Designing a questionnaire to achieve the stated research

objectives thus becomes a challenge due to novelty. Nevertheless, having a clear, explicit specification of theoretical construct definitions and operationalisation is a first step towards successfully achieving empirical testability, verifiability and confirmability of research (Hughes et al 1986).

The questionnaire was designed in order to gather data to address the propositions. First, some questions were used in the pilot case studies to ensure that these are useful in obtaining relevant information. With the responses from the interviews, a questionnaire was drafted. Advice was received from faculty members at Warwick Business School, as well as from some other universities in the USA, UK, Hong Kong and Taiwan, such as Iowa State University, Temple University, the University of Miami, the University of Hong Kong, and Cheng Chi University. Comments covered the design of the questionnaire, how to guarantee statistical significance, and the conceptualisation of the model. Discussion with academics has proved to be very effective means of achieving empirical testability and verifiability (Chen 1999). The questionnaire was used in a pilot survey, during the course of which it was revised twice. The changes will be discussed in detail in section 4.5.2 and 4.5.3.

#### **4.5.1 Pilot Case Studies**

At the first stage of the questionnaire design, some pilot case studies were conducted to achieve three main objectives. First, there is no literature about the measuring methods of Internet usage. Explorations were carried out. Secondly, some measurements in the existing literature were tested in the interviews to investigate



applicability. Thirdly, managerial insights into the use of the Internet and foreign market entry mode were sought. The interviews were completed in early March 2001. All the feedback from the pilot case studies was used in drafting the questionnaire. Chapter 5 gives full details concerning the conduct of pilot case studies.

#### **4.5.2 Pilot Survey**

There were three reasons why a pilot survey was conducted. First, managerial insights were sought into the use of the Internet and foreign market entry mode. Secondly, they were used to ensure that all items included in the questionnaire made sense to the target respondents. Thirdly, they were conducted to confirm that all questions raised in the questionnaire would be relevant to the propositions of the present research. 52 firms were selected from each of the three industries for the pilot survey, giving a total of 156 firms in all.

The pilot survey was begun in June 2001. Before the questionnaires were sent to each firm, telephone calls were made to the general manager or the managing director of each to confirm that they would be willing to participate. During the phone calls, the address of the firm and the name of the informant were also confirmed. In some cases, the general manager or the managing director answered the phone and all of them showed their interest in participating in the pilot survey. In other cases, the general manager or the managing director was either in a meeting or out of town, but their secretaries all encouraged the sending of the questionnaire. In

the end, the questionnaire pack was sent to all 156 firms. This indicates that prior telephone notification is not essential for the present research. Therefore, it was decided that prior telephone notification would not be used at the mail survey, although it is commonly employed (Diamantopoulos and Schlegelmilch 1994; Yu and Cooper 1983).

Each firm was sent a pack containing a signed cover letter, the questionnaire in two languages, and one self-addressed, pre-stamped envelope. By October 2001, when the pilot survey was completed, 16 mail packs had been returned with a post office stamp stating that the addressees had moved to a new unknown location without providing forwarding information. 32 questionnaires were returned, fully completed.

A preliminary analysis was conducted among these 32 cases. The results were used to amend the questionnaire. Two major changes were made - more questions were added in the questionnaire in order to obtain data for 4 variables and the scales were changed from five to seven points. The reasons are: 1) using a single question to obtain data may omit other good measures to capture certain concepts; 2) it has been found that seven-point bipolar scale system is more popular than five-point system in management and business research (Cavusgil and Zou 1994).

#### **4.5.3 Pre-test**

It took half a year to refine the questionnaire before it could be used in a mail survey. When the final version of the questionnaire was ready, it was pre-tested with



the co-operation of ten managers in June 2002, in face-to-face interviews in Hong Kong. The pre-test was conducted: 1) to ensure that all questions in the questionnaire were clearly raised and no misunderstandings would arise; 2) to ensure that it would not take managers more than ten minutes to fill it in. On average, it took managers in the pre-test eight minutes to complete the questionnaire. The feedback from the pre-test was mainly concerned with how many managers were going to release figures regarding the sales volume of their firms. Reticence on this matter was not seen as a problem for the present research for two reasons. First, sales volume is a commonly-studied measure (e.g. Yu and Ito 1988; Erramilli 1989; Agarwal and Ramaswami 1992), which has already featured in other research. Secondly, another measure could be used for firm size, namely the number of full-time employees, which is highly correlated to the sale volume (Agarwal and Ramaswami 1992; Cavusgil and Zou 1994).

One major amendment made to the questionnaire after the pre-test was that the section about the background of the respondent was removed as it did not play any role in examining the impact of the Internet on entry mode.

#### **4.5.4 Mail Survey**

Based on experience obtained from the pilot survey, some preparations were made before the mail survey was conducted. First, local stamps were bought in Hong Kong and sent over to England. These stamps were used on the return envelopes, rather than franking them. According to Jobber and O'Reilly (1996), pre-stamped

reply envelopes can increase response rate, since managers do not want to waste the stamps on the reply envelopes. Secondly, addresses of firms were hand-written on the out-going envelopes so that it would not be regarded as junk mail (Hegelson 1994, as cited in Byrom and Bennison 2000). Being mistaken for junk mail contributes to a low response rate. All questionnaire packs were sent out in early October 2002 from England to firms in Hong Kong, with a cover letter, two versions of the questionnaire and a self-addressed, stamped envelope with the author's Hong Kong address. Five weeks after the initial mail survey, follow-up letters, along with duplicate questionnaires and stamped reply envelopes were sent to those firms that did not reply in the first round (Jobber and Saunders 1988; Brouthers 2002).

## **4.6 QUESTIONNAIRE ADMINISTRATION**

### **4.6.1 Questionnaire Translation**

The questionnaire was originally drafted in English. It was proof-read by a native speaker to ensure the proficiency of English. It was then translated into Chinese by the author. In order to ensure that native Cantonese speakers would understand the Chinese version, a native Cantonese was asked to read the questionnaire. She offered advice on how to increase the interest of respondents by using informal Cantonese, without affecting the academic precision of the questionnaire. Her advice was followed as she holds an MSc degree in Marketing from the University of Strathclyde. She was also asked to back translate the questionnaire from Chinese into English. This process was re-iterated several times, until the meaning of the questions in Chinese was exactly the same as in English (Brouthers 2002).



#### **4.6.2 About the Questionnaire**

The questionnaire (see Attachment III and IV for the English and Chinese versions respectively) contained 47 questions. Most were based on seven-point Likert scales (a summated scale) and few of them were open questions. There were three reasons why Likert scales were used. First, almost all of the existing measurements in entry mode studies have used Likert-scales (e.g., Kwon and Hu 1995; Agarwal and Ramaswami 1992; Brouthers et al 1999; Brouthers 2002). Secondly, by using the summated scale to a set of related variables, the measurement error that might occur in a single question will be reduced (more information can be found at the web site of <http://trochim.human.cornell.edu/kb/scallik.htm>). Thirdly, another benefit of using a summated scale is that it represents the multiple aspects of a concept in a single measure and allows more exact distinctions to be made between respondents (visit the web site of <http://trochim.human.cornell.edu/kb/scallik.htm> for more information).

The questionnaire was divided into two sections. In Section One, the questions pertained to firm size, international experience and special ability, prior to the adoption of the Internet. In Section Two, the questions dealt with how market potential and transaction costs of Internet business were perceived when the Internet was adopted, how the Internet was used in each firm and how a firm performs since the Internet was adopted. Before Section One, a definition of Internet business was provided, and instructions were given to respondents on how to fill in the questionnaire (Diamantopoulos and Schlegelmilch 1994).

### **4.6.3 The Cover Letter**

The cover letter in the first mailing (see Attachment I and II for the English and Chinese versions respectively) was written and designed according to a mixture of conventional and unconventional criteria. It was conventional as the letter clearly and concisely indicated the purpose of the present research, who was conducting the present research and how the author would treat the data (Diamantopoulos and Schlegelmilch 1994). At the bottom, the letter was signed by the author in order to demonstrate that she had committed considerable time and effort in the present research (McCormack and Hill 1997). It was also unconventional in its presentation. The letter included three cartoons with a few lines of words underneath. There are two reasons why cartoons were adopted. First, people in Hong Kong are brought up in a society where cartoons are very popular. Research conducted by the Chinese University of Hong Kong revealed that people in Hong Kong prefer reading cartoons rather than plain text. Secondly, people in Hong Kong work longer hours than their European and American counterparts (Apple Daily, 2000). With a higher work load, they do not want to spend time reading lengthy explanatory letters.

The insertion of three cartoons in the cover letter highlighted the importance of the present research (Diamantopoulos and Schlegelmilch 1994). The first cartoon reflected the initial phase when e-commerce received a very warm welcome in Hong Kong in 1999: people queued for hours on end in order to subscribe to the stocks and shares of the first listed e-commerce company, Tom.com. The second cartoon was a reminder of how half a year later, when the share prices of several e-enterprises



plunged, people began to have serious doubt about whether the Internet could help companies increase efficiency and profitability. The third cartoon showed the importance of conducting research such as the present to investigate to what extent different uses of the Internet influence foreign market entry mode and the performance of a firm.

In addition, in order to encourage participation in the mail survey, the benefit of the present research to respondents was emphasised in the letter (Yu and Cooper 1983): that each participating firm would be provided with a summary report once the present research was completed. All these design elements were incorporated to improve the response rate in the mail survey.

In the second round of mailing, a different cover letter was sent out (see Attachment V and VI for the English and Chinese versions respectively). This version again stressed that the present research would be useful, that participation would be sincerely appreciated, and that all data provided would be kept confidential, according relevant regulations in the University of Warwick. An alternative means of returning the completed questionnaire was offered, which was to fax it to the author. The opportunity of supporting one of the few studies into Hong Kong firms was also emphasised.

#### **4.6.4 Questionnaire Pack**

In the first and the second rounds of mailing, each questionnaire pack contained one signed cover letter (double sided, one in English and one in Chinese), two copies of the questionnaire (one in English and one in Chinese), and one self-addressed, pre-stamped reply envelop. Although instructions were provided at the beginning of the questionnaire, they were also provided in the cover letters, to ensure that the questionnaire was properly completed.

### **4.7 SUMMARY**

This chapter discusses some issues relating to the research methodology. A mail survey was used to collect data, to examine the impact of Internet usage on entry mode choice and the performance of a firm. All variables were measured by using established techniques in the existing literature. Questions relating to these measurements first were used in pilot case studies to ascertain their applicability in the present research. Based on the feedback from the interviews, a questionnaire was drafted. The questionnaire was discussed with faculty members of the University of Warwick and some other institutions. It was tested in a pilot survey among 156 firms, and the responses from the pilot survey were used to amend the questionnaire. The revised questionnaire was pre-tested with ten firms before it was administered in the mail survey. The questionnaire pack in the mail survey contained a cover letter, the questionnaire (both in two languages) and a self-addressed, pre-stamped reply envelope. Samples were carefully chosen to achieve the objectives of the present research. The three industries chosen constituted a spectrum of industries in which



the impacts of different usage of the Internet on entry mode is significant. The number of firms that participated in the mail survey met the basic requirements: feasibility and being statistical significance.

## **CHAPTER FIVE**

### **PILOT CASE STUDIES**

#### **5.1 INTRODUCTION**

Studies into the impact of Internet usage on international business are emerging. However, no one as yet has specifically addressed how to measure them. In order to validate such measures that were used in the questionnaire, pilot case studies were conducted. This chapter provides full details about the pilot case studies. Explanations are given in Section 5.2 as for why and how pilot case studies were conducted. Preliminary findings are presented in Section 5.3. The influential factors were discussed in Section 5.4; and how measures of Internet usage were validated for subsequent use was in Section 5.5.

#### **5.2 PILOT CASE STUDIES**

##### **5.2.1 Objectives of Pilot Case Studies**

The commercial use of the Internet has attracted a great deal of academic attention (Quelch and Klein 1996; Hamill and Gregory 1997; Lituchy and Rail 2000). Reviewing the literature helps to identify a gap to fill. In order to answer to what extent Internet usage impacts on entry mode choice and the performance of a firm, a questionnaire was designed to gather data. However, in the incipient literature, measures of different uses of the Internet have not been empirically tested as yet. Therefore, in order to validate them for subsequent use in the questionnaire, pilot



studies were conducted. Other motives include: 1) to gain insightful and managerial information on its impact on entry mode; and 2) to help sampling, specifically on which industries can provide significant findings for the present research.

### **5.2.2 How Pilot Case Studies Were Conducted**

When the pilot case studies were conducted, the decision was not yet made as for which industries were going to be investigated. Thus, the selection of industries was randomly made from the sample population in The Hong Kong Business Web Directory 2000 and on [www.yahoo.com.hk](http://www.yahoo.com.hk) according to a report in Financial Times: the biggest online sales worldwide in 1996 were generated from computer products, consumer products, books and magazines, travel and hotels. Therefore, the consumer product manufacturing, travel and hotel industries were chosen.

It should be noted that the cases were chosen to meet certain requirements in compliance with the present research objectives of pilot case studies. First, they ought to have foreign customers visiting their web sites, making purchases or placing orders via the web. Secondly, they ought to use the Internet in different ways. Accordingly, four firms were selected. They were a leisure activity dealer, a CD manufacturer, an online department store and an online bookstore. The leisure activity dealer used the Internet to collect and process information about customers and to disseminate information about its products (hereafter referred to as 'Firm A'). The CD manufacturer used the Internet mainly to disseminate product information and to communicate with its customers (hereafter referred to as 'Firm B'). The

online department store used the Internet to communicate with its customers and providers and to sell products online (hereafter referred to as 'Firm C'). The online bookstore used the Internet to sell books (hereafter referred to as 'Firm D'). In each case study, company historical archives were examined and interviews were conducted.

Archive materials reviewed included 1) documents on the development of the firm; 2) catalogues and brochures available at different periods of time; 3) advertisements posted in newspapers and on the web and 4) newspaper cuttings about the firm.

Interviews began in December 2000 and completed in June 2001. Interviewees included managing directors, general managers or some departmental managers, particularly those who were responsible for the performance of their web sites. Each interview took about one hour. All interviews were tape-recorded with the permission of the interviewees. Some interviews were conducted in English and others in Cantonese. In the face-to-face interviews, one copy of the questions was given to the interviewee, and one was kept with the author. All interviewees were very co-operative, and they all discussed openly how the Internet was used in their firms and how it influenced their international business. Their comments were offered not only based on their experience, but also on their knowledge of Internet business. Among them was a managing director, who holds an MBA degree from the Massachusetts Institute of Technology (MIT). He offered some good academic



advice as to how to transform the interview questions into a meaningful questionnaire.

## **5.3 RESEARCH RESULTS**

### **5.3.1 Firm A**

Firm A was set up in May 1998 as a middle-man between providers and consumers of leisure activities in Hong Kong. It had initially only five employees. To begin with, hard-copy brochures were always printed to publicise its products. As the managing director said:

‘The majority of our firm’s expenditure was on advertising... We had to make every effort to leave our brochures to travel agencies in order to attract more customers. It was costly. In addition, we had to pay travel agencies if we obtained customers with their help.’

Six months later in November 1998, Firm A’s web site was launched at a very low cost by a friend of the managing director and himself. Since then, the web site has witnessed an increase in the number of customers, both from Hong Kong and overseas, as the managing director said:

‘We were going to do most of the promotion with hard-copy information. That was very expensive. We would have done this even if the Internet had not existed ... However, what the Internet does for us is to make it extremely cheap to disseminate information about us and about the leisure activities. At the same time, we can get information at very low cost about

our customers, to get lots of information, and lots of customers. That's the main benefit for us. If we had done this in hard copy, the company would have been in trouble now because we would not have had enough return to cover the cost.'

An electronic customer database was set up in Firm A with information obtained through the web and other means such as telephone or fax. It has enabled the firm to offer all kinds of promotions to its customers, including greater discounts to customers who have placed repeated orders. Long-term customer relationships have thus been built.

Having been able to retain some faithful customers, Firm A launched its first overseas office in Singapore in February 2000. The motive behind was as follows, as the managing director said:

'We occasionally got email enquires about whether we can provide activities in Singapore and Malaysia. That's one of the reasons why we did ... At the moment, 90 to 95 percent of our customers are local. They are quite satisfied and have come to recognise the significance of our service. Some Hong Kong customers emailed us asking whether we can provide leisure activities in a foreign country they are going to visit ... They couldn't find a local service like ours when they were on holiday, which made us determined to cater for them, even in another country.'



Before the office in Singapore was set up, two entry options were considered. One was that Firm A could stay in Hong Kong while having a web site registered as www.xxx.com.sg. It could remotely deal with local activities providers and customers in Singapore. Another option was that Firm A could have an office in Singapore to deal with providers and customers within local reach. The latter one was selected. The reason is as follows as the managing director explained:

‘It is true that it is costly of having a foreign office. However, when you think the local presence will bring confidence in local customers, it is worthwhile.’

Singapore was chosen as a result of careful consideration over the investment environment in Singapore and Malaysia. The managing director said:

‘At that moment, we didn’t have sufficient resources to have two offices. We thought if we could maintain an overseas one, we would prefer Singapore simply because the investment risk is lower in Singapore than in Malaysia.’

The web site of Firm A performed very well, as reported by the managing director:

‘It’s amazing that our advertising cost last year was almost zero due to lots of co-advertising programmes on the Internet. This is very good for such a small firm like us.’

Therefore, when further expansion was considered, the managing director noted the computer system ought to be the first to be done:

‘Although our expanding business didn’t bring a growth in the number of staff, the biggest portion of the firm’s expenditure goes to staffing. I think we will upgrade our computer systems in order to cut the cost on staff.’

### **5.3.2 Firm B**

Firm B is a CD manufacturer. It was established in 1987, ten years before its web site was launched. Its main business is to manufacture blank CDs and export them. Its major customers are in Europe and North America. According to the general manager, before the web site was launched, the main channel for its customers getting to know about Firm B was through their local chambers of commerce. For a long time, its performance was satisfactory until the mid 1990s, when competition was intensified in the industry, as the general manager noted:

‘The competition was so intense in the mid 1990s. The price per blank CD decreased from 20 Hong Kong dollars in the late 1980s to five Hong Kong dollars.’

To cope with it, many means of sales promotion had to be used. Having a web site is the strategy, as the general manager said:

‘We noticed in the mid-1990s that web sites were used to promote products and increase sales by many firms. We had a meeting in 1997 to



discuss how to use the Internet for our company since we are not Amazon.com, nor Dell. The marketing director proposed to use the Internet to broaden the firm's exposure to potential customers on the Internet.'

A web site was launched soon after the meeting. Subsequently, one IT technician was employed responsible for the performance of the web site. The technician noted the following:

'The birth of the Internet led to a big change in the way people obtain information. They can read on the Internet everything that used to be found only in newspapers, brochures, catalogues, etc. Hence, we decided to launch our own web site with plenty of information about our firm and our products.'

Since cost was a major concern, Firm B launched a very simple web site containing information about the firm and products, email address, telephone and fax numbers, and contact persons. Despite its simplicity, the web site has attracted a large number of enquires from foreign countries, as the managing director noted:

'We could not believe that such a simple web site could have such a great effect. We got a lot of enquiries every day about our products, prices and even about why we didn't have online transaction facilities.'

Apart from advertising its products on the web, communication was another usage to link Firm B and its customers. The marketing director said:

‘We used to contact our overseas customers by phone or fax. It was very expensive. The best thing the Internet offers us is that we can contact them via e-mail, which is extremely cheap. ... Some enquires via the web continued to develop into orders.’

The growing customer interest encouraged Firm B to think about upgrading the web site by providing an online payment system, as the general manager said:

‘Providing an online payment system is not at all costly. We won’t lose anything by doing so as our traditional way of doing business is still there. If the provision can attract more customers to place order and make payments online, we will consider it a bonus. ...’

Although its customers are mainly in Europe and North America, having an office in these regions was never on the agenda of its meetings. The general manager said:

‘We don’t want to leave Hong Kong since we are a manufacturer and we have all the machines, land and factories in Hong Kong and China, where labour cost is so cheap. We don’t think we could survive without these advantages when having an office in Europe or North America. Doing exporting is good enough for us.’



### 5.3.3 Firm C

Firm C is a subsidiary in Hong Kong of a UK-based virtual department store ('M Firm' hereafter). Firm M's UK web site was launched in November 1999, which brought, within the first few month, a remarkable amount of customers. A third of them came from Germany across the Channel. The success of its web site was attributed to its ability to handle transactions at high speed. In order to let their overseas customers enjoy such a benefit, the first offshore office was launched in Germany with a German web site in February 2000. Dealing with German and other continental customers in Germany proved to be a success. The marketing director explained the reasons as follows:

'If, for example, it's cheaper for a German customer to buy a fax machine in the UK, once you add the shipping cost and the VAT, which is about 17.5%, then suddenly the price increases. You might be saving five pounds but you might be losing one week in shipment.'

One secret of the success of Firm M's web site in Germany was that the Internet was used to source local providers. On the web site of Firm M, it could be found some notices for providers, as follows:

'If you are interested in becoming the provider, please contact us (the email address, the telephone and fax number, and contact persons' names are provided.)'

The success of the German web site encouraged Firm M's international expansion to Asia-Pacific. Hong Kong, being the hub of the Asia Pacific, was duly selected as the next location to launch another office:

'Having only one offshore web site is not enough for us. We perceive that online sales can save customers time and money. If a customer in Asia buys something on the German or UK site, he has to pay the shipping at the way to where he is living. In addition, he has to wait longer for the goods to arrive. So both the convenience and price advantages disappear. Furthermore, if there is a web site in Hong Kong, we can attract other Asian customers.'

Therefore, the Hong Kong office was launched with a local web site in May 2000. The business was doing well when the interviews were conducted. At that time, another wine web site was being exclusively designed for expatriates living in Hong Kong. Firm C learnt a lot from its Internet business. For example, language was the big issue on its Hong Kong web site. Local Cantonese customers still preferred to use Chinese when they shopped online. In order to cater local tastes, Chinese was adopted. At the same time, Firm C also learnt about Internet business in other Asian countries. It was told that a decision was made to open two offices outside Hong Kong, one in Korea and one in Japan.

'The Korean and the Japanese are our major foreign customers on the Hong Kong web site. Based on our experience, we think it necessary to have



offices in these two countries. Delivery time and cost can be saved for our customers in these two countries.'

#### **5.3.4 Firm D**

Firm D was established in August 1992 by an American MIT graduate. The original business scope was, and still is, to design business software. However, when the core business started to decline after 1997, the founder decided to launch a web site to sell books online. He was hoping to get some experience in dealing with online payment in order to provide solution programmes for other businesses. He said:

'We didn't mean to keep the business for a long time as having a storage place is costly in Hong Kong. We just wanted to gain some first-hand experience in order to provide solutions for online business.'

The online bookstore turned out to be a success in a short time. Orders came from the neighbouring regions of Hong Kong, such as China and Macau. Within five months, two more employees were hired to cope with the increasing business. Nevertheless, the founder never thought about launching offices in China or Macau. He said:

'Online bookstore was just something very new at the moment. In Hong Kong, when our bookstore was launched, we had only seven competitors. But now there are about 30 of them. At the moment, there are not many online bookstores as in China. I am sure in the future when we have our offices set up in China, there will be lots of them. The competition will be

intense. Besides, our books are all printed in the UK, Australia or America. They are more expensive compared to books printed in China. Thus we think we'd better stay in Hong Kong.'

## **5.4 DISCUSSION**

From the above four cases, we have seen several factors that may influence decisions on entry mode choice. Some of them have been identified in entry mode perspectives, cited in Chapter 2, along with which the present research investigates the impact of Internet usage on entry mode choice.

### **5.4.1 Internet Usage**

When all the four firms are compared, it is discovered that they all use the Internet in different ways: Firm A used the Internet to collect and process information about customers and to disseminate information about their products; Firm B used the Internet mainly to disseminate product information and to communicate with its customers; Firm C used the Internet to communicate with its customers and providers and to sell products online; and Firm D used the Internet to sell books. Firm A and Firm D are both small-sized and sell their products online. However, with the Internet being used to process customer information, managers in Firm A believed that local presence brought confidence in local customers. However, this does not explain why Firm D did not enter China or Macau to set up offices. Both Firm A and C set up offices in a foreign country. However, Firm A wanted to expand its customer database through a local presence. By contrast, Firm C wanted



to source local providers in order to provide cheaper products. Firm B and D used the Internet in different ways, but their managers' believed staying in Hong Kong was the best strategy. Therefore, these exploratory findings may indicate that different uses of the Internet impacts entry mode choice.

#### **5.4.2 Market Potential**

Firm C and Firm D are both online retailers. However, Firm C was going to Korea and Japan to set up regional offices, while Firm D decided to stay in Hong Kong to sell books online. Managers in Firm C perceived the market potential in Korea and Japan was high and having regional offices would save Korean and Japanese customers delivery time and money. However, managers in Firm D perceived that the market potential in China was limited because of the high price of its products, and that the increasing competition would offset the market potential. Therefore, perceptions on foreign market potential might influence entry mode decisions.

#### **5.4.3 Digitisation of Products and Services**

Firm A and Firm B are all small-sized. We have seen that Firm A launched one overseas office in Singapore but Firm B firmly believed that staying in Hong Kong was the best strategy to compete in the industry. One difference between Firm A and B is that the former is a leisure activity dealer (a service firm), and transactions and delivery can be completed online, while the latter is a manufacturer and its products cannot be delivered online. This difference also exists between Firm A and Firm D.

Therefore, it is speculative that whether or not products and services can be delivered online influences entry mode decisions.

#### **5.4.4 Investment Risk**

Firm A and Firm C both committed resources in a foreign market, although the former is a smaller firm. However, the motives behind their decisions were different: investment risk in Malaysia was perceived higher than in Singapore by managers in Firm A, when a decision was made as for which country to invest; while market potential was the pure driving force for its decision to enter Korea and Japan. Therefore, it is speculative whether investment risk influences entry mode choice alongside with the Internet.

#### **5.4.5 Special Abilities of Firms**

When Firm B is compared to Firm C and D, the location of Firm B is limited in Hong Kong and China. The reason is that cheap labour cost is the core success factor for Firm B. When the competition was intensified in the mid 1990s, the price per CD dropped 300% from 20 Hong Kong dollars to 5 Hong Kong dollars. It is obvious that trying to keep the product at a low cost is the secret to survive in the industry. However, Firm C and D have some special abilities to compete in the industry. Firm C was searching for local providers through the local web site in order to save delivery time and money for local customers. Firm D's founder was an IT expert and knew when and how to broaden business scopes. Variations of special abilities in these firms may indicate that it has impact on entry mode choice.



## **5.5 VALIDATION OF THE MEASURES OF INTERNET USAGE**

As stated in 5.2.1, one of the objectives of conducting pilot case studies was to validate the measures that were subsequently used in the questionnaire. Before the pilot case studies started, literature on Internet usage was reviewed, such as Sterne (1995), Quelch and Klein (1996), Hoffman et al (1996), Atkearney, Hamill (1997), Bennett (1997), Samiee (1998b), Arnott and Bridgewater (2002). Several types of usage were identified. They are 1) to disseminate information on the web; 2) to collect information for market research; 3) to provide online customer service and 4) to sell products and services online.

Questions were designed to ask interviewees to what extent the Internet was used in their firms with respect to the former three types – ‘to sell products and services online’ was treated in the present research as a dummy variable. All interviewees agreed that the extent of the Internet usage varied from firms to firms. Some of them indicated that the Internet may be used in a fifth way in other firms. Accordingly, an open question was asked about whether the Internet was used in other ways apart from the four types.

During the course of pilot case studies, some managers suggested that each type of usage identified in the literature be split into several specific uses. For example, ‘to use the Internet for market research’ could be split into ‘to collect information for R&D’, ‘to collect information about customers’ and ‘to collect information about competitors’. It was believed that these specific questions could be understood

better. Since factor analysis was performed in the present research and Likert scales were used, the split was well justified. Therefore, many specific questions were raised to obtain data on the former three types of Internet usage.

## **5.6 SUMMARY**

The chapter describes why and how pilot case studies were conducted in the present research. In the incipient literature, no established measures of Internet usage could be adopted directly. In order to validate its measures for future use, pilot case studies were conducted. Four firms were selected in three industries to explore the impact of Internet usage. We have discovered that some firms prefer to stay in their home country, Hong Kong, but others prefer to launch local offices in foreign markets. Some factors that have been discovered to explain entry mode choice reflected those identified in the literature. At the same time, Internet usage showed its effects in the pilot case studies. This chapter finally explains how measures of Internet usage were validated in the pilot case studies, before they were used in the questionnaire at the next stage.



## **CHAPTER SIX**

### **DATA ANALYSIS**

#### **6.1 INTRODUCTION**

Data were collected through pilot case studies and a subsequent survey. The survey data were analysed to address the propositions put forward in Chapter 2. This chapter describes the data analysis techniques and presents the results. In Section 6.2, issues concerning the survey responses are discussed, such as the response rate, and the non-response bias test. In Section 6.3, some initial results of the analysis are presented, including graphical and descriptive analyses, analysis of outlier and test of normality, factor analysis, and reliability analysis. The purpose of the initial analyses was to gain insights into the data and to pave the way for further investigation. Section 6.4 shows how the survey data were analysed to address the research propositions: multinomial hierarchical logistical regression was performed to investigate to what extent Internet usage impacts entry mode choice; and multiple regression analysis was employed to examine its impact on the performance of a firm. Section 6.5 concludes this chapter.

#### **6.2 RESPONSE AND RESPONSE RATE**

By 30 January 2003, 24 undelivered packs and 95 completed questionnaires were received. The 24 packs were returned because the firms changed their business addresses. Among the 95 questionnaires, seven were incomplete with some major

information missing. Therefore, there were 88 valid responses, which made up a response rate of 15.5%. In order to meet the minimum requirements of running a regression analysis for the 88 observations, the number of the independent variables should be less than 15. According to Hair et al (1995), ‘a general rule for generalisation is that the ratio of observations to independent variables never falls below 5 to 1’ (p.166). Table 6.1 presents the usable sample in the three industries, which is an extension of Table 4.3.

**TABLE 6.1      USABLE SAMPLE**

Industries	Populations	Sample		
		Total	Survey Sample	Usable Sample
Textile, Apparel and Leather Goods	437	420	368	60
Transportation	112	107	55	10
Travel and Hotel	203	198	146	18
<b>Total</b>	<b>752</b>	<b>725</b>	<b>569</b>	<b>88</b>

To test the non-response bias, a t-test was conducted to compare the number of employees in non-response firms and that of response firms in each industry (Armstrong and Overton 1977). No significant statistical differences were observed. At the same time, the questionnaires that were returned following the first and second mailings were compared statistically using a t-test to discover whether a significant difference existed between the two responding groups (Brouthers 2002).



No significant statistical differences were observed in the questionnaires from the two mailings.

### **6.3 INITIAL ANALYSIS**

According to Hair et al (1995), examining data with the use of statistical methods before multivariate analysis helps to gain several critical insights into the characteristics of the data. First of all, a basic understanding of the data and relationships between the variables can be obtained. Secondly, examining the data can ensure that the data set actually meets the requirements of a multivariate analysis. Accordingly, several initial analyses were performed: 1) graphical and descriptive examination of the data; 2) analysis of outlier and test of normality; 3) an assessment of correlations among variables; 4) factor analysis and 5) reliability analysis. These analysis techniques are discussed in the following.

#### **6.3.1 Graphical and Descriptive Examination**

Generally, a graphical and descriptive examination helps to gain a thorough understanding of the basic characteristics of the underlying data and relationships (Hair et al 1995). The characteristics of the 88 firms are summarised in Table 6.2.

**TABLE 6.2      A PROFILE OF THE SAMPLED FIRMS**

Dimension	Range	Number	%
Year of establishment	Before 1959	12	13.6
	1960s	6	6.8
	1970s	12	13.6
	1980s	29	33.0
	1990s	27	30.7
	2000s	2	2.3
	Total	88	100.0
Year of launching a web site	1993 –1996	16	18.2
	1997 -1999	47	53.4
	2000 –20002	21	23.9
	Total	84	95.5
Number of employees	Less than 49	63	71.6
	50-249	15	17.1
	More than 250	10	11.4
	Total	88	100.0
Product or service provided	Product	60	68.2
	Service	28	31.8
	Total	88	100.0
Having previous international experience?	Yes	65	73.9
	No	23	26.1
	Total	88	100.0
Is the product or service digitised?	Yes	34	38.6
	No	54	61.4
	Total	88	100.0

Among these 88 firms, 6 firms were established in the 1960s, which accounts for 6.8% of the total. 2 firms were set up in the 2000s, which accounts for 2.3% of the total. 12 firms were set up in and before the 1950s, which accounts for 13.6% of the total. 29 and 27 firms were set up in the 1980s and 1990s respectively. They account

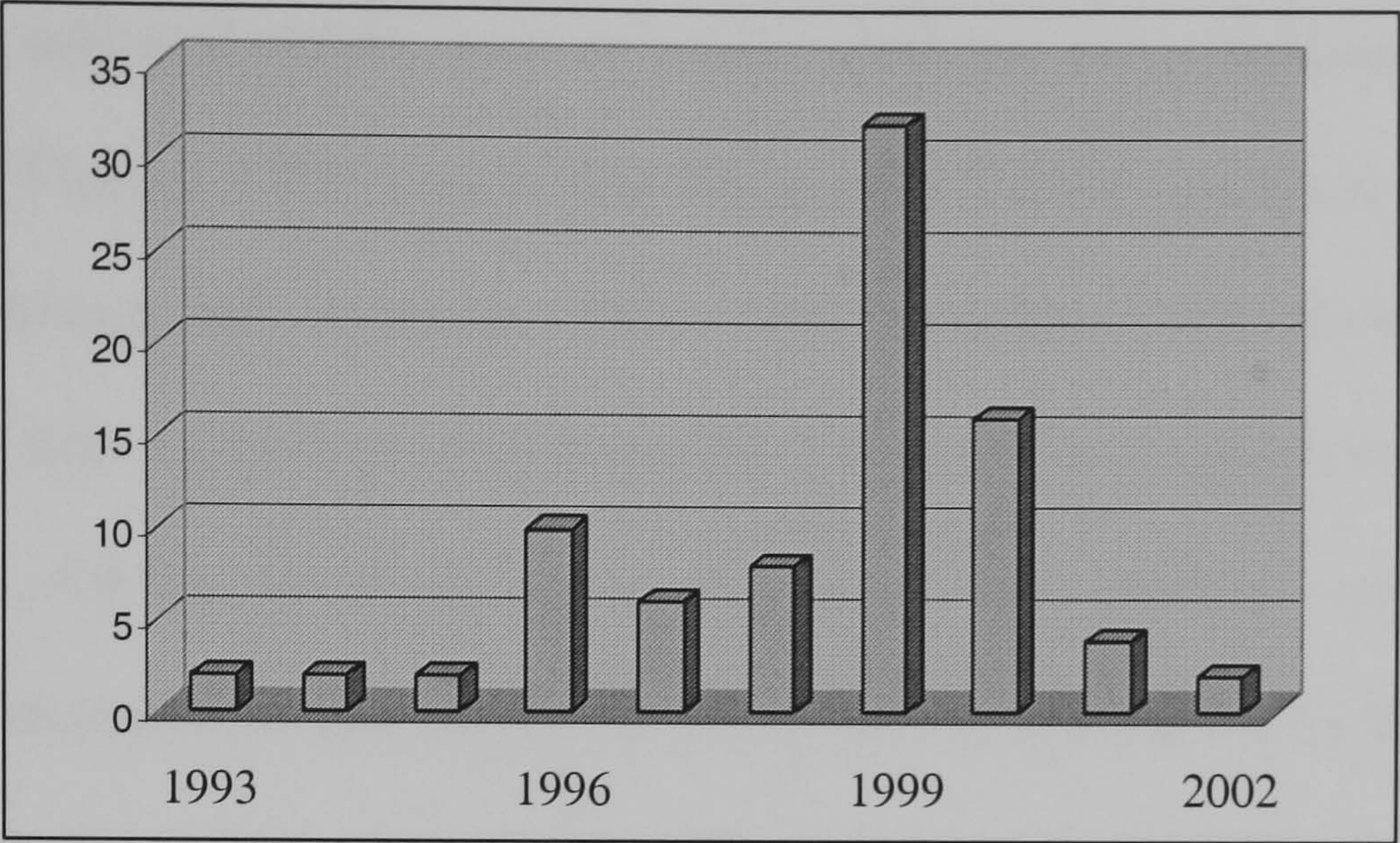


for 33.0% and 30.7% of the total respectively. The distribution of the establishment period is consistent with previous findings about the fast growth of entrepreneurs in Hong Kong in the 1950s, 1980s and 1990s (e.g. Busenitz and Lau 1996). First, when the People's Republic of China was founded in 1949, many people came to Hong Kong with capital, which enabled them to set up their own businesses. The 1950s witnessed a boom in the launch of new businesses in Hong Kong. Secondly, China's policy of increased openness in the early 1980s allowed people to move to Hong Kong for business purposes and allowed foreign direct investment to come to China. Consequently, a great number of new businesses have been established in Hong Kong in the 1980s and 1990s.

Table 6.1 also shows that more than 50% firms launched their web sites between 1997 and 1999. About 18.2% firms launched their web sites between 1993 and 1996 and 23.9% firms launched their web sites since 2000. If we take a closer look at the launch time of the same firms (see Figure 6.1), 1999 is the most popular year, when more than 30 firms launched their web sites. This reflects how ever-expanding publicity in Hong Kong during 1997 and 1999 about e-commerce and its impact on businesses in the US, UK and other developed economies, influenced a large number of firms to launch their web sites and encouraged a large number of consumers to shop online (Apple Daily 1999).



**FIGURE 6.1    LAUNCH TIME OF WEB SITES IN THE SAMPLE**



As shown in Table 6.2, 63 firms in the sample are small-sized<sup>4</sup>, with the number of employees less than 49. This accounts for 71.6% of the total. There are 15 medium-sized firms with the number of employees between 50 and 249. The medium-sized firms account for 17.1% of the total. Only 10 firms are large-sized with more than 250 employees. When the data were analysed, firm size was categorised into two groups, small-sized or non-small-sized. The reason why a dummy variable was employed was that the distribution of the variable, firm size is highly skewed, which severely limiting opportunities for the statistical analysis of results (Bennett 1997).

In the sample, 68.2% firms provide products and 31.8% firms provide services. 73.9% of the firms had international experience before the launch of their web sites. 26.1% of them gained their international experience with the growth of their web sites. 61.4% of the firms could not have their products and services digitised, compared to 38.6% of



them who could. It should be pointed out that being digitised means products and services can be delivered online, such as music, software, some banking services (Benjamin and Wigland 1995; Arnott and Bridgewater 2002), and even customer experience (Kalakota and Robinson 2001). This definition was given in the questionnaire to help respondents understand the concept of digitisation used in the present research. Among the 34 firms who can deliver their products and services online, 18 are manufacturers and 16 are service providers. Among the 54 firms who cannot deliver their products or services online, 42 are manufacturers and 12 are service firms.

### 6.3.2 Analysis of Outliers and Test of Normality

Outliers are observations with a unique combination of characteristics identifiable as distinctly different from the other observations (Hair et al 1995; SPSS-X User). The purpose of outlier analysis in the present research is to assess any potential problems and inconsistencies in the data, which may skew the multivariate data analysis in the next stage. Observations were made to examine the outliers and no such problems were revealed.

To test the normality of the data, the definition of  $z_{kurtosis} = \frac{kurtosis}{\sqrt{\frac{24}{N}}}$  was employed.

According to Hair et al (1995), a range of  $-2.58$  to  $+2.58$  indicates a normality of

---

<sup>4</sup> According the Department of Trade and Industry, UK, a micro firm is one with 0 – 9 employees; a small-sized firm is one with 0 – 49 employees; a medium-sized firm is one with 50 – 249 employees and a large firm is one with over 250 employees.

data (at a significant level of .01). The  $z_{kurtosis}$  range of the data set in the present research is from -2.47 to 2.02, at the .01 probability level, which easily meets the requirements of normal data. We can, therefore, proceed with further analysis on the assumption that it is normal.

### **6.3.3 Correlation Matrix**

Before factor analysis was conducted in the present research, a correlation matrix was computed to meet the specified objectives of grouping variables. This was done according to Hair et al (1995), in which ‘the first decision in the design of a factor analysis involves calculation of a correlation matrix’ (p.97). A correlation matrix was also important for the regression models that were subsequently adopted. If two or more independent variables are highly correlated, there is a multicollinearity among them. Multicollinearity can influence both explanation and estimation of a regression model for some reasons (Hair et al 1995). First, ‘multicollinearity limits the size of the coefficient of determination and makes it difficult to add unique explanatory prediction from additional variables’ (Hair et al 1995, p.188). Secondly, it makes determining the contribution of each independent variable difficult because the effects of the independent variables are ‘mixed’ or confounded (Hair et al 1995; p.199). A correlation matrix between both independent and dependent variables was computed and shown in Table 6.3.



TABLE 0.3 CORRELATION MATRIX

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	2.64	1.80	---																	
2	3.80	1.70	.79**	---																
3	3.75	1.78	.76**	.83**	---															
4	3.91	1.63	.70**	.78**	.91**	---														
5	3.75	1.68	.63**	.73**	.83**	.92**	---													
6	3.93	1.69	.69**	.79**	.89**	.93**	.90**	---												
7	4.20	1.54	.39**	.48**	.36**	.36**	.30**	.28**	---											
8	3.82	1.49	.50**	.47**	.41**	.41**	.41**	.41**	.86**	---										
9	4.14	1.32	.54**	.49**	.48**	.54**	.46**	.43**	.82**	.86**	---									
10	4.30	1.74	.47**	.57**	.57**	.62**	.56**	.46**	.75**	.70**	.77**	---								
11	4.39	1.47	.46**	.49**	.52**	.51**	.43**	.45**	.81**	.86**	.85**	.74**	---							
12	4.43	1.26	-.26*	-.26*	-.28**	-.18	-.19	-.28**	.26*	.20	.26*	.26*	.06	---						
13	4.70	1.28	-.32**	-.28**	-.21*	-.17	-.20	-.26*	.17	.08	.19	.23*	.03	.85**	---					
14	4.27	1.36	.08	.28**	.28**	.26*	.19	.13	.21*	.09	.20	.33*	.20	-.05	.09	---				
15	4.57	1.61	-.09	.01	.00	.08	.06	-.02	-.01	-.11	.08	.11	.08	-.11	-.20	.58**	---			
16	3.77	1.81	.31**	.30**	.23*	.21*	.27*	.27*	.13	.33**	.21	.12	.28**	-.23*	-.31**	.10	.04	---		
17	4.34	1.62	.50**	.62**	.54**	.48*	.39**	.48**	.40**	.48**	.39**	.45**	.49**	-.20	-.30**	.32**	.19	.58**	---	
18	3.34	1.41	.04	.02	.03	.09	.12	.13	-.16	.12	-.04	-.05	.02	-.16	-.28**	.13	-.01	.47**	.27*	---
19	3.25	1.62	.35**	.43**	.58**	.05**	.35**	.40*	.38**	.33**	.35**	.53**	.40**	.08	.18	.28**	-.04	.23*	.34**	-.12
20	5.05	1.69	.30**	.26*	.42**	.44**	.45**	.42**	-.07**	.17	.12	.08	.06	-.24*	-.25*	.02	-.22*	.31**	.23*	.37**
21	4.00	1.61	.24*	.36**	.27*	.24*	.15	.25*	.07	.17	.15	.15	.20	-.08	-.16	-.07	-.14	.20	.26*	.37**
22	3.02	1.38	.20	.39**	.40**	.32**	.34**	.31**	.19	.27*	.29**	.34**	.38**	.01	-.04	.11	.05	.19	.37**	.20
23	4.45	1.71	-.13	.17	.05	-.07	.18	-.12	.14	.11	.10	.02	.13	.42**	.48**	.03	-.08	-.15	.04	.00
24	5.02	1.67	-.03	.16	.25*	.25*	.09	.16	.13	.07	.10	.26*	.19	.29**	.36**	.18	.16	-.33	.11	-.13
25	5.25	1.44	-.03	.16	.15	.08	.03	.06	.12	.11	.07	.11	.08	.31**	.22*	.25*	.06	-.03	.16	-.20
26	2.80	1.81	.45**	.52**	.62**	.54**	.43**	.53**	.44**	.54**	.49**	.52**	.60**	.01	.04	.17	.07	.29**	.56**	-.11
27	3.52	1.64	.22**	.36**	.38**	.41**	.25**	.37**	.02	.10	.12	.13	.24*	-.16	-.10	.08	.05	.03	.22*	.19
28	2.39	1.31	.40**	.48**	.41**	.41**	.42**	.48**	.04	.25*	.21*	.04	.29**	-.34**	-.43**	.04	.07	.31**	.30**	.43**
29	3.30	1.53	.41**	.49**	.43**	.49**	.40**	.51**	.18	.19	.28**	.27*	.24*	-.01	-.04	-.01	.04	.10	.34**	-.24*
30	3.18	1.68	.54**	.56**	.53**	.55**	.50**	.57**	.09	.19	.31**	.16	.22*	-.17	-.20	-.12	-.04	.32**	.32**	-.04
31	2.70	1.19	.39**	.43**	.31**	.30**	.17	.32**	.01	.06	.04	.02	.12	-.24*	-.35**	.01	-.04	.25*	.31**	.24*
32			-.47*	-.44*	-.35**	-.32**	-.37**	-.30**	-.19	-.25*	-.25*	-.22*	.12	.01	.14	-.26*	-.07	-.22*	-.35**	.08
33			.52	.00	.04	.02	.10	.06	-.10	-.08	-.04	-.08	-.15	.15	-.16	-.25*	-.26*	-.17	-.19	-.01
34			-.21	-.29**	-.35**	-.19	-.09	-.15	-.03	.14	.02	-.24*	-.10	-.05	-.18	-.35**	-.23*	.22*	-.07	.22*
35			.03	.10	.03	.04	-.05	.03	.08	.16	.06	-.06	.08	.14	.11	-.02	-.16	.13	.01	.24*
36			.14	.33**	.39**	.31**	.21*	.29*	.15	-.05	.12	.37**	.14	.05	.12	.44**	.45**	-.19	.28**	-.16

	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
1																		
2																		
3																		
4																		
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19	---																	
20	.11	---																
21	.15	.54**	---															
22	.26*	.46**	.70**	---														
23	.35**	-.18	.28**	.26*	---													
24	.53**	-.15	.23*	.36**	.69**	---												
25	.32**	.08	.45**	.55**	.65**	.67**	---											
26	.47**	.24*	.37**	.47**	.17	.31**	.27**	---										
27	.40**	.25*	.68**	.50**	.39**	.51**	.45**	.54**	---									
28	.07	.39**	.67**	.59**	.17	.14	.42**	.43**	.69**	---								
29	.23	.23*	.26*	.17	.09	.17	.06	.44**	.31**	.21	---							
30	.17	.46**	.46**	.27*	.02	-.01	.01	.45**	.40**	.47**	.81**	---						
31	.15	.28**	.56**	.13	.08	-.06	.11	.28**	.45**	.48**	.55**	.69**	---					
32	-.13	-.08	.06	.01	.19	.16	.07	-.35**	.07	.13	-.22*	-.24*	-.15	---				
33	.02	.31**	.25*	.22*	-.25*	-.17	-.12	-.08	.13	.13	-.03	.07	-.05	-.09	---			
34	-.33**	.27*	-.03	-.22*	-.25*	-.53**	-.34**	-.18	-.27*	.01	-.06	.03	-.01	.00	.28**	---		
35	.02	.06	.29**	.23*	.45**	.24*	.55**	.17	.26*	.34**	-.12	.00	.16	.28**	-.26*	-.08	---	
36	.41**	.05	.18	.36**	.06	.37**	.38**	.34**	.22*	.11	.35**	.18	.22*	-.07	-.14	-.49**	.06	---



**Note:**

\*: Significant at the level of .05      \*\*: Significant at the level of .01

1	Training programme	10	Popularity in the industry	19	Customer service online	28	Extra investment committed
2	Efficient use of the Internet	11	Perceived market potential	20	Contact made online	29	Very profitable
3	Technological ability	12	Cost of making contracts	21	Feedback received online	30	High foreign sales volume
4	Managerial ability	13	Cost of enforcing contracts	22	Employment for web service	31	Rapid growth
5	Financial ability	14	Know-how being misused	23	Info about the firm	32	Size
6	Overall ability	15	Standards not being maintained	24	Info about products/services	33	Product or service
7	Customer acceptance	16	Info collected for R&D	25	Online presence	34	Having experience or not
8	Firm acceptance	17	Info collected about customers	26	Foreign sales obtained online	35	Digitisation
9	Government acceptance	18	Info collected about competitors	27	First contact made online	36	Online sales or not

In Table 6.3, some items are highly correlated, with correlation coefficients more than .60 at a significance level of .01. These correlations indicate that these items are co-linear and may be combined in one factor. It should be noted that almost all the items that show high correlation coefficients are meant to measure the same concept. For example, the abilities of a firm to compete in Internet business was measured by 6 items: 'training programmes', 'efficient use of the Internet', 'perceived technological abilities', 'managerial abilities', 'financial abilities' and 'the overall ability'. They may be classified into one factor, providing the factor analysis supports such a clustering, indicating the special abilities a firm has to compete with other firms in Internet business. The rationale behind are that: 1) if a firm provides good training programmes to its employees on how to use the Internet, the web will be used more efficiently for international business; 2) if a firm hires people who have expertise and knowledge on IT and managing Internet business, it will have more special abilities than other firms; 3) if a firm invests more in Internet business, its ability to compete in Internet business will be increased; and 4) the perceived ability can reflect its actual ability of using the Internet. The same pattern was found for other items, such as 7, 8, 9, 10 and 11. They were highly correlated but they were intended to measure market potential in a foreign country. All this indicates that it is necessary to conduct a factor analysis in order to reduce the number of variables.



#### **6.3.4 Validity Test and Factor Analysis**

Validity indicates if the scale measures what it is designed to. There are two types of validity, content validity and construct validity.

Content validity is a judgement by experts, or by reference to literature, of whether a scale truly measures the concept for which it was designed (Sakakibara et al 1993).

In the present research, to avoid low content validity, two measures were adopted.

First, the relevant literature has been comprehensively reviewed and some existing measurements were adapted that were considered most relevant for the present research (Sakakibara et al 1993; Lee and Jang 1998). These measurements have been used in a great number of studies in areas ranging from marketing to international business (see Table 4.1). For example, market potential is measured as perceived potential in Agarwal and Ramaswami (1992); Li (1995), and Chen and Chen (2002); as customer acceptance in Agarwal and Ramaswami (1992); Brouthers et al (1999); and Brouthers et al (2000); and as host government acceptance in Goodnow and Hensz (1972); Brouthers et al (2000); and Agarwal and Ramaswami (1992). Secondly, high content validity was achieved by pre-testing and refining the questionnaire in personal interviews in pilot case studies with managers involved in international expansion decisions in their firms (Katsikeas 1998).

Construct validity indicates whether a scale provides an appropriate operational definition of an abstract variable (Sakakibara et al 1993). It is a necessary condition for theory development and testing (Peter 1981). It can be tested in different

approaches. Peter (1981) reviews a number of papers that deal with construct validity and concludes that factor analysis is the most popular method (Peter 1981, p.140). This is consistent with Rummel (1970), Churchill (1979), and Sakakibara et al (1993). With factor analysis, several other benefits can also be obtained.

First, the separate dimension of the construct can be identified. If a scale loads on more than one factor, then it measures more than one construct and should be split into two or more independent scales, or else the factors beyond the first should be eliminated as unwanted nuisance factors (Rummel 1970; Sakakibara et al, 1993).

Secondly, data reduction can be achieved. If some scales load on one factor, they are treated as 'measuring the same construct'. As a result, either the scale that has the highest loading or a new scale based on the composition of all scales is used in a further analysis (Rummel 1970; Hair et al 1995).

Thirdly, factor analysis can be a tool for developing an empirical typology (Rummel 1970). For example, independent variables can be grouped according to their factor loadings so that an insight might be obtained about how many factors these independent variables are about and what they are.

Fourthly, data can be transformed to meet the assumptions of other techniques (Rummel 1970; Hair et al 1995). For example, regression analysis assumes that if tests of significance are to be applied to the regression coefficients, the predictor or



independent variables are statistically independent (Johnston 1972). If the predictor variables to be used are correlated, thus the assumption is violated. Factor analysis can be used to reduce them to a smaller set of uncorrelated variables.

There are many methods of factor analysis, namely variance components of a variable, common factor analysis, principal component analysis and image factor analysis. Principal component analysis is used in the present research. In principle component analysis, there is no assumption about a variable's common parts and no problem about their commonality as in other factor analysis methods. This prepares the data set for subsequent analysis, regression analysis in the present research, which requires orthogonal independent variables. Otherwise, multicollinearity will cause serious problems in interpretation of data analysis results. In order to ensure that the independent variables are not highly correlated, VARIMAX rotation was particularly used in the present research because it is regarded as the best analytic orthogonal rotation technique (Harman 1967).

VARIMAX is an orthogonal rotation criterion that centres on simplifying the columns of the factor matrix (Hair et al 1995). It maximises the variance of the squared elements in the columns of a factor matrix (Rummel 1970). VARIMAX rotation tends to spread the variance of a variable across more factors (Rummel 1970). The consequence is to polarise the pattern of loadings of original variables on each factor; at the same time. It gives a clearer separation of the factors (Hair et al 1995).

#### **6.3.4.1      *Factor Analysis of the Independent Variables***

Factor analysis was performed on the independent variables and dependent variables separately (Rummel 1970; Cavusgil and Zou 1994). 25 items were included in the initial VARIMAX rotation factor analysis of the independent variables. The Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy were conducted to examine whether the data set was suitable for factor analysis (SPSS 2000). The KMO measure of sampling adequacy is greater than .60, which is the minimum value for a good factor analysis (Tabachnick and Fidell 1996). The Bartlett's test is significant. All indicates that the data set in the present research is suitable for factor analysis.

Table 6.4 presents the results of the initial factor analysis with the results of Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity.



TABLE 0.4 FACTOR ANALYSIS OF THE INDEPENDENT VARIABLES (I)

Item No	Item	Component					
		1	2	3	4	5	6
1	Training programme	.65	.41	.00	.00	-.34	-.12
2	Efficient use of the Internet	.72	.39	.18	.00	-.35	.00
3	Technological ability	.90	.26	.15	.00	-.19	.00
4	Managerial ability	.92	.26	.00	.00	.00	.11
5	Financial ability	.89	.20	.00	.17	.00	.00
6	Overall ability	.90	.20	.00	.13	-.15	.00
7	Customer acceptance	.15	.91	.00	-.12	.00	.00
8	Firm acceptance	.23	.91	.00	.15	.00	.00
9	Government acceptance	.33	.85	.00	.00	.18	.00
10	Popularity in the industry	.49	.70	.00	.00	.23	.18
11	Perceived market potential	.28	.86	.12	.00	.00	.00
12	Feedback received on line	.19	.00	.50	.61	-.14	-.26
13	Employment for web service	.28	.16	.54	.52	.00	.00
14	Info about the firm	-.19	.13	.83	.00	.17	.00
15	Info about product/service	.18	.00	.85	-.22	.16	.16
16	Online presence	.00	.00	.84	.26	.11	.13
17	Info collected for R & D	.00	.34	-.24	.63	-.33	.13
18	Info collected about customers	.28	.49	.17	.30	-.45	.28
19	Info collected about competitors	.00	.00	.00	.77	-.12	.11
20	Customer service provided on line	.51	.24	.51	-.26	.00	.00
21	Contact made on line	.48	-.12	.00	.69	.00	-.20
22	Cost of making contract	-.25	.27	.24	.00	.81	.00
23	Cost of enforcing contract	-.18	.15	.26	-.21	.84	.00
24	Standard not being maintained	.18	.11	.12	.00	.00	.84
25	Know-how being misused	.00	.00	.00	.00	.00	.88
Eigen value		5.61	4.73	3.24	2.55	2.11	1.84
% variance		22.43	18.91	12.97	10.21	8.72	7.38
Kaiser-Meyer-Olkin Measure of Sampling Adequacy							
Bartlett's Test of Sphericity				Approx. Chi-Square			
				df			
				Sig.			



As seen in Table 6.4, there were two items that created problems: item 18, 'information collected about customers' and item 20, 'customer service provided on line'. First, item 18 had the highest loading on Component 2. Other five items in this component were designed to measure foreign market potential while item 18 was about using the Internet to collect customer information. These two concepts were so different; 'information collected about customers' could not measure market potential. Therefore, it was not used in the present research. This decision was made in accordance with the notion that while factor analysis can help to reduce data, the abandoning of an item needs to be justified with theoretical assumptions (Rummel 1970; Norusis 1985). Secondly, item 20 loads on 2 components, Components 1 and 3, with the same loading value of .51. This indicates that this item was not properly adapted to measuring 'the relational usage of the Internet'. As a result, item 20 was not included. In the final stage of factor analysis, 23 items were included. Table 6.4 presents the results of final factor analysis of the independent variables. It must be pointed out that the percentage of variation of each component was increased when the two items were dropped. For example, Component 1 explained 22.43% variation of the independent variables in Table 6.3, yet its explanatory power was increased to 24.47% in Table 6.5. Table 6.5 also presents the results of KMO measure of sampling adequacy (.677) and Bartlett's test of sphericity (sig. at .000). Both tests indicate that the data is suitable for factor analysis.



TABLE 6.5 FACTOR ANALYSIS OF THE INDEPENDENT VARIABLES (II)

Item No	Item	Component					
		1	2	3	4	5	6
		ABILITY	POTENTIAL	READINESS	USAGE	CONRISK	INRISK
1	Training programme	.69	.40	.00	.00	-.30	-.12
2	Efficient use of the Internet	.75	.38	.19	.00	-.30	.00
3	Technological ability	.90	.25	.14	.00	-.15	.00
4	Managerial ability	.93	.25	.00	.00	.00	.11
5	Financial ability	.91	.19	.00	.16	.00	.00
6	Overall ability	.92	.19	.00	.11	-.11	.00
7	Customer acceptance	.15	.92	.00	-.11	.00	.00
8	Firm acceptance	.23	.90	.00	.17	.00	.00
9	Government acceptance	.33	.86	.00	.00	.17	.00
10	Popularity within the industry	.49	.69	.00	.00	.26	.18
11	Perceived market potential	.27	.88	.13	.00	.00	.00
12	Feedback received on-line	.18	.00	.61	.51	-.19	-.25
13	Employment for web service	.28	.18	.64	.41	.00	.00
14	Info about the firm	-.17	.11	.80	-.14	.24	.00
15	Info about product/service	.18	.00	.80	-.33	.20	.18
16	Online presence	.00	.00	.87	.14	.14	.14
17	Info collected for R & D	.00	.29	-.16	.66	-.25	.00
18	Info collected about competitor	.00	.00	.00	.80	.00	.11
19	Contact made on line	.48	-.12	.00	.69	.00	-.22
20	Cost of making contract	-.24	.23	.21	-.11	.85	.00
21	Cost of enforcing contract	-.18	.12	.20	-.22	.88	.00
22	Standard not being maintained	.17	.11	.00	.00	.00	.85
23	Know-how being misused	.00	.00	.00	.00	.00	.88
Eigen value		5.40	4.38	3.03	2.30	2.06	1.79
% variance		24.47	19.05	13.16	9.99	8.95	7.77
Kaiser-Meyer-Olkin Measure of Sampling Adequacy							
Bartlett's Test of Sphericity		Approx. Chi-Square					
		df					
		Sig.					
		2225.70					
		253					
		.000					



As shown in Table 6.5, six factors could be abstracted from the 23 items.

Component 1 is made up of six items. It was named ABILITY, which is defined in the present research as special abilities a firm possesses to compete in Internet business. The six items are 'the quality of the training programme', 'efficient use of the Internet', 'technological abilities', 'managerial abilities', 'financial abilities' and 'perceived overall ability to compete'. The factor loadings are all above .68; and the eigen value is 5.40. With such a high eigen value, this construct was validated, which explains 24.47% of the variance from the total. The results support Buckley and Casson (1976), who stated that foreign firms must possess some ownership advantage in order to compete with indigenous ones. If a firm has a high quality training programme on Internet business, its employees will gain knowledge and experience, and therefore will enable a firm to build up competitiveness. Similarly, if a firm has more personnel who know how to use the Internet efficiently, it is likely that it will be able to compete well in a foreign market. Having some firm-specific advantages is highly correlated with the technological, financial and managerial abilities. The factor analysis results in the present research support Agarwal and Ramaswami (1992) and Brouthers (2002).

Component 2 was named POTENTIAL. It is defined in the present research as the market potential in a foreign country concerning doing business through the web. It comprises of five items, namely 'customers' acceptance', 'firms' acceptance', 'the government's acceptance of Internet business', 'popularity of Internet business in



the industry', and 'perceived market potential'. If more customers accept Internet business and use it in a foreign market, the opportunities for a firm to do business via the web are greater. The higher the acceptance of firms, the more opportunities there will be. If a foreign government accepts Internet business at a high level, it is likely that more favourable policies will be implemented in order to encourage more firms and customers to conduct Internet business. As Goodnow and Hensz (1972) found, a government may create barriers to foreign investors through strong price control, legal discrimination, policy towards foreign ownership, etc. Therefore, a host government's favourable policies indicate high market potential. The final item, 'overall perceived market potential' was highly correlated with what it sought to measure. The factor loadings of these five items are .92, .90, .86, .69, and .88 respectively, with an eigen value of 4.38. It explains 19.05% of the variance.

Component 3 was named READINESS, which is concerned with whether a firm is ready to conduct Internet business. As Porter and Millar (19985) argue, every firm must understand the broad effects and implications of the new technology and how it can create substantial and sustainable competitive advantages (Evans and Wurster 2001). When a firm provides online feedback channels, appoints employment for online service, disclose information about the firm, products and services, and is keen to have an online presence, it is ready for Internet business and ready to allow for competitive advantages being created (Kalakota and Robinson 2001). In the present research, if a firm has online service available, it is regarded as being ready for Internet business. Appointing personnel is a key response to increasing demand

for online customer services, so as providing information about the firm and the products or services online. If a firm does not have anybody responsible for online customer service, or does not disclose enough information on the web, it is considered to be not ready for Internet business. If a firm is keen to have an online presence, it will invest money in building its web site. The factor loadings of the 5 items for READINESS are .61, .64, .80, .80 and .87 respectively, with an eigen value of 3.03. It explains 13.16% of the variance.

Component 4 was named USAGE. It reflects how firms use what the Internet may offer to businesses. It consists of three items, 'information collected for R&D', 'information collected about competitors' and 'contact made on line'. Many firms disseminate information about themselves and their products and services as a result of getting ready for Internet business. This has actually provided an excellent condition for other firms to collect information. Porter and Millar (1985) argue that information technology is generating more data as a firm performs its activities and is permitting it to collect or capture information that was not available before (p.152). The information obtained online may be used for different purposes. For example, some information collected may be used to develop new products; and others may be used for strategic planning in order to compete well within the industry. As the Internet can be used to contact customers at low cost (Hoffman and Novak 1996b), some firms may use it for this particular purpose. The factor loadings for these items are .66, .81, and .69 respectively, with an eigen value of 2.30. It explains 9.99% of the variance.



Component 5 was named CONRISK. It is defined in the present research as any risk incurred in making and enforcing contracts in a foreign country, i.e. contractual risk. It is made up of two items, 'cost of making contracts' and 'enforcing contracts' in a foreign country. These items were derived from Williamson (1985), in which transaction cost is measured with the *ex ante* costs of negotiating a contract, and the *ex post* costs of monitoring performance and enforcing all parties to adhere to the contract. However, it should be noted that the concept of cost in this case has nothing to do with money. It is a contractual risk, as defined in some studies, such as Agarwal and Ramaswami (1992). The eigen value is at 2.06 and the loadings for the two items are .85 and .88 respectively. It explains 8.95% variance.

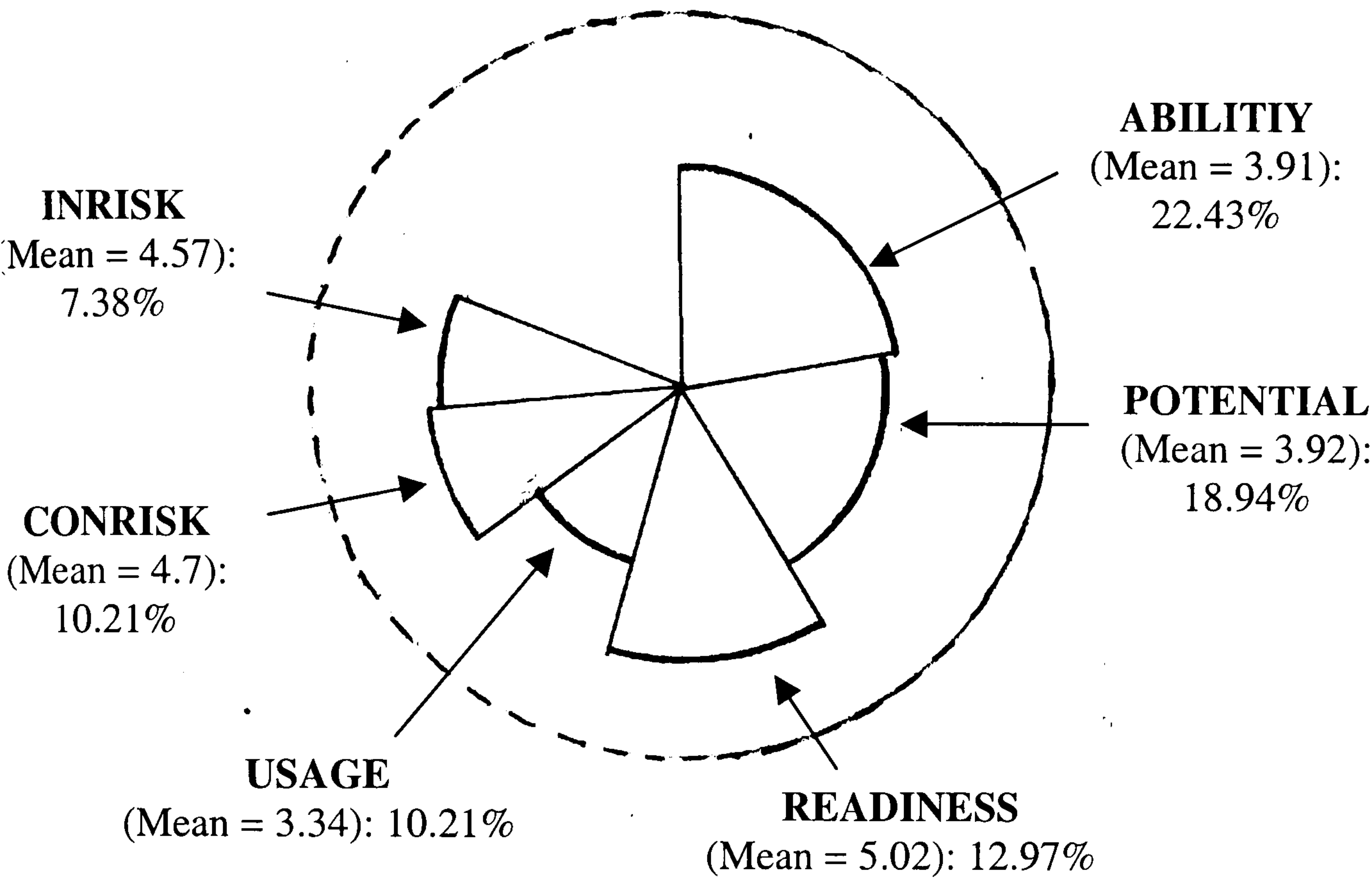
Component 6 was named INRISK, which is defined in the present research as investment risk in a foreign country. It consists of two items, 'standard not being maintained' and 'know-how being misused'. The loadings are .85 and .88 respectively with an eigen value of 1.79. It explains 7.77% of the variance. As stressed in Chapter 4, investment risk was omitted in the questionnaire because some secondary data were to be used. However, when data collection was completed, it was discovered that some respondents did not provide data about which countries their products and services were sold, and some fill it in with a continent rather a country. Both made it difficult to apply the country risk indicators in the present research. Fortunately, the factor analysis results showed that there were two items that could be used for investment risk. These items were 'standard not being maintained' and 'know-how being misused'. The component they made up of

indicates transfer risk. It is one type of investment risk according to Meldrum (2002) – ‘country investment risk consists of political risk, transfer risk, exchange risk, location or neighbourhood risk, sovereign risk and economic risk’. Therefore as a remedial measure, INRISK was used to measure investment risk, which was derived from two items for transfer risk. The implications were discussed in Chapter 8 as one limitation of the present research.

In conclusion, the six factors abstracted from the 23 items for the independent variables, namely ABILITY, POTENTIAL, READINESS, USAGE, CONRISK and INRISK, explained 82.39% of the total variance. Each of them had a mean of 3.91, 4.20, 5.02, 3.34, 4.70, and 4.57 respectively. The variations that the independent variables explain and their mean values can be mapped in Figure 6.2. The radius of each section represents the mean value of each factor; and the angle of each section represents the percentage of variance it explains. The radius of the circle represents the full scale used to measure each item in the present research, i.e. seven points.



**FIGURE 6.2     MAPPING OF THE INDEPENDENT VARIABLES**



**6.3.4.2     *Factor Analysis of the Dependent Variables***

Six items were included for factor analysis of dependent variables. The KMO measure of sampling adequacy is .700, which is greater than the minimum value for a good factor analysis (Tabachnick and Fidell 1996). The Bartlett’s test is significant at the .000 level, which indicates that the use of factor analysis for the data is appropriate. The results are presented in Table 6.6. Two components were generated.

**TABLE 6.6      FACTOR ANALYSIS OF THE DEPENDENT VARIABLES**

Item No	Items	Component	
		1	2
		PERFORMANCE	ACHIEVEMENT
1	Very profitable	.93	.00
2	High foreign sales volume achieved	.90	.30
3	Rapid growth	.71	.37
4	Foreign sales obtained on line	.34	.63
5	Foreign customers obtained through online contacts	.18	.89
6	Extra investment committed	.17	.87
Eigen value		3.41	1.115
% Variance		56.78	18.58
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			.700
Bartlett's Test of Sphericity		Approx. Chi-Square	286.23
		df	15
		Sig.	.000

Component 1 was named PERFORMANCE, which is defined as the performance of a firm. Three items were included: ‘very profitable’, ‘high foreign sales volume achieved’ and ‘rapid growth achieved’. Apparently, these three items are about the performance of a firm, although they emphasise on different aspects of performance (Cavusgil and Zou 1994). Specifically, ‘very profitable’ and ‘high foreign sales volume’ refer to a firm’s profitability, while ‘rapid growth achieved’ is one outcome of achieving high profitability. The loadings are .93, .90 and .71 respectively, with an eigen value of 3.41. The factor explains 56.78% of the variance of the independent variables.

Component 2 was named ACHIEVEMENT, which is defined in the thesis as the achievement of a firm’s web site. Three items were included in Component 2: ‘foreign



sales obtained on line', 'initial contact of foreign customer on line' and 'extra investment made in Internet business. The more a web site generates online sales, the more it achieves. Similarly, the more initial contacts made by new customers through the web, the higher achievement the web will make. Moreover, if a web site performs well, or achieves a lot, more Internet-related extra investment may be made. Therefore, these three items are all about the achievement of a web site. The loadings for them are .63, .89 and .87 respectively and the eigen value is 1.12. It explains 18.58% of the variance.

In total, the two factors explain 75.36% of the total variance of the dependent variables.

### **6.3.5 Reliability Test**

Reliability tests examine to what extent a variable or set of variables is consistent in what it is intended to measure (Peter 1979; Norusis 1985; Hair et al 1995). There are at least three basic methods for assessing the reliability of a measurement scale: test-retest, internal consistency and alternative forms (Peter 1979). They all attempt to correlate scores obtained from a scale with scores from some form of replication of the scale (Peter 1979). The difference between them is in what the scale is to be correlated with to compute the reliability coefficient. 'In test-retest, the identical set of measures is applied to the same subjects at two different times; in internal consistency, a measurement scale is applied to subjects at one point in time; in alternative forms, two similar sets of items are applied to the same subjects at two

different time' (Peter 1979, p.8). Accordingly, the internal consistency was more appropriate to the present research. The rationale for internal consistence is that the individual items or indicators of the scale should all be measuring the same construct and thus be highly inter-correlated (Churchill 1979; Norusis 1985). Cronbach's coefficient Alpha is the most widely used measure for testing inter-item reliability when using scales of individual measures (Sakakibara et al 1993; Hair et al 1995). It measures the internal consistency within a particular scale, by calculating an average of the correlation coefficient of each item within a scale with every other item, as weighted by the number of items within a scale (Crobach 1951; SPSS 2000). If Cronbach's coefficient Alpha is higher than .70, it is considered acceptable; a more than 0.60 Cronbach's coefficient Alpha is only acceptable for new scales (Elloy et al 1991; Hair et al 1995). In the present research, 29 items were used to collect information for 8 constructs, derived from the literature, which were subsequently included in the regression mode. Accordingly, a reliability analysis was run to test the reliability of these 29 items (23 items for the independent variables and 6 for the dependent ones), see Table 6.7.



**TABLE 6.7      RELIABILITY TEST**

<b>Construct</b>	<b>No of observations</b>	<b>No of items</b>	<b>Cronbach's Coefficient Alpha</b>
ABILITY	N = 88	6	.96
POTENTIAL	N = 88	5	.95
CONRISK	N = 88	2	.92
INRISK	N = 88	2	.73
READI NESS	N = 88	3	.64
USAGE	N = 88	5	.82
ACHIEVEMENT	N = 88	3	.77
PERFORMANCE	N = 88	3	.86

ABILITY is an established construct in the literature. It has been used to study foreign market entry modes for a long time (e.g. Agarwal and Ramaswami 1992; Brouthers et al 1999; Brouthers 2002). In the present research, there are 6 items included in this construct. Cronbach's coefficient Alpha for ABILITY is .96, above the minimum level of .70. Thus these 6 items are acceptable as reliable items for the construct of ABILITY. Similarly, POTENTIAL, CONRISK, INRISK, ACHIEVEMENT and PERFORMANCE all have their Alphas above .70. As established constructs, all the items make up reliable constructs. The findings are consistent with previous studies, e.g. Agarwal and Ramaswami (1992), Cavusgil and Zou (1994). With their Cronbach's coefficient Alphas higher than 0.70, the inter-item reliability of the above six constructs is acceptable in the present research.

READINESS and USAGE are new constructs in the present research. Both are about Internet usage. In the literature, some authors (e.g. Quelch and Klein 1996;

Hoffman et al 1996; Atkearney; Hamill 1997) suggested how to measure them but no empirical research has yet been conducted to validate their approach. Although some pilot studies were conducted to validate them before their use in the questionnaire in the present research, their Cronbach's coefficient Alphas are not very high, at .64 and .82 respectively. However, Flynn et al (1996) and Hair et al (1995) argue that a valid new construct should have a Cronbach's coefficient Alpha above .60. Accordingly, items included in these two constructs are also considered reliable.

It should be noted that the high reliability might be caused by the number of scale points used in the questionnaire (Nunnally 1978). However, in Churchill and Peter (1984), the number of scale points were found to account for only 5% of the variance of the reliability; and the range of points were from 1 to 20 with the mean number of 5.8, and standard deviation of 2.3. Such a result shows that the use of the 7-point scale in the present research is appropriate and the high reliabilities of the measures are trust-worthy.

## **6.4 DATA ANALYSIS**

### **6.4.1 Hierarchical Logistic Regression**

According to the results of factor analysis, there are six independent variables included in the multinomial regression model, i.e. POTENTIAL, ABILITY, CONRISK, INRISK, READINESS, and USAGE. Five dummy variables were also included, i.e. SIZE, EXPERIENCE, INDUSTRY, DIGITISATION and SALE.



Arnott and Bridgewater (2002) argue that any product that has a highly intangible information content is highly suited to a web delivery environment. Benjamin and Wigland (1995) and Kierzkowski et al (1996) rank services such as financial services, insurance, banking, travel service, etc as 'fit with interactive media'. Therefore, Arnott and Bridgewater (2002) posit that digitisation have influences on Internet usage. SALE is one type of Internet usage. It is a dummy variable in the present research: having online sale facilities or lack of the same.

Logistic regression was used since the dependent variable is dichotomous (MODE: equity modes Vs non-equity modes) (Whitehead 2002; Menard 2002). The direct path coefficients for the 11 independent variables are estimated by using logistic regression coefficients ( $\beta$ 's) in the model where:

$$\begin{aligned} \text{MODE} = & \beta_0 + \beta_1 \text{SIZE} + \beta_2 \text{INDUSTRY} + \beta_3 \text{EXPERIENCE} + \\ & \beta_4 \text{DIGITISATION} + \beta_5 \text{POTENTIAL} + \beta_6 \text{ABILITY} + \\ & \beta_7 \text{CONRISK} + \beta_8 \text{INRISK} + \beta_9 \text{READINESS} + \\ & \beta_{10} \text{USAGE} + \beta_{11} \text{SALE} + \epsilon. \end{aligned}$$

When the initial analysis was performed, results showed that there was a problem in the full model: one or more than one dummy variable tends to split the data. Therefore, the five dummy variables were examined before they were used in the logistic models. They are industry type, having pre-international experience or lack of same, digitisation or lack of same, online payment facilities provision or lack of same and size of firms (small-sized and non-small-sized). In order to detect which variable might create problems, five separate models were computed in which one of

them was omitted (Hair et al 1995; Menard 2002). Results showed that DIGITISATION caused the problem. Therefore, it was not included in the logistic regression model in the final stage.

In order to examine the effect of Internet usage, two separate models were built with Model 1 being nested (Hamilton 1991; Wuensch 2002). In Model 1, all the variables that have been identified in entry mode perspectives are included. In Model 2, however, they are controlled. It means that the variables of Internet usage, READINESS, USAGE and SALE were not included in Model 1. They were however included in Model 2 to test their impact on entry mode choice. Table 6.8 contains the results of the logistic regression analysis. The Wald value is given in parentheses underneath  $\beta$ .



**TABLE 6.8      HIERARCHICAL LOGISTIC REGRESSION ESTIMATES FOR MODE**

Variable		Model 1	Model 2
SIZE		.00 (.12)	<b>.00 *</b> (3.24)
INDUSTRY		-.44 (.22)	-1.23 (.58)
EXPERIENCE		<b>-3.44 **</b> (11.94)	<b>-8.67 **</b> (8.11)
POTENTIAL		.50 (1.56)	.48 (.55)
ABILITY		-.61 (2.61)	.89 (1.08)
CONRISK		.30 (.61)	.24 (.12)
INRISK		-.45 (2.38)	-.61 (1.05)
READINESS			.44 (.41)
USAGE			<b>-3.34 *</b> (6.24)
SALE			<b>6.48 *</b> (4.47)
<b>-2 Log Likelihood</b>		46.60	24.09
<b>Chi-square</b>		42.57 **	65.08 **
<b>Cox x Snell R <sup>2</sup></b>		.38	.52
<b>Nagelkerke R <sup>2</sup></b>		.60	.82
<b>Change statistics</b>	<b>Chi-square</b>		22.50 **

\* P < .05      \*\* P < .01      Equity modes = 1

**In Model 1:** Results indicate that there is a significant and negative main effect of EXPERIENCE for MODE only (Wald = 11.94). It means that the more experience a firm has, the less likely it is that firms will pursue an international equity entry strategy. Although  $\beta$  coefficients of POTENTIAL, CONTRISK and INRISK are correctly signed as the existing literature suggests, the effects are not significant. Results of the effects of market potential, contractual risk, investment risk, and industry type support Brighthouse (2002). Results of the effects of special abilities, previous international experience, market potential and investment risk support Agarwal and Ramaswami (1992).

**In Model 2:** Two variables of Internet usage, USAGE and SALE both play a significant positive role ( $P < .05$ ). The  $\beta$  coefficient of USAGE is -3.34. This indicates that when firms use what the Internet offers to businesses, they tend to stay in their home country. The  $\beta$  of SALE is 6.48, which implies that when firms provide online sales facilities it is more likely that equity modes will be chosen for international expansion. EXPERIENCE and SIZE have significant effects at the same time. More specifically, the impact of having previous international experience is significantly reduced in Model 2, with the Wald value dropping from 11.94 to 8.11. The  $\beta$  coefficient for EXPERIENCE further decreases from -3.44 to -8.67. This indicates that it is not necessary to have any previous international experience for firms to choose equity modes when the Internet is used for international expansion. The  $\beta$  coefficient of SIZE is .00, at a significance level of .05. It supports Proposition 1 that firm size does not matter in entry mode choice when the



Internet is used. In other words, both small and large firms show the same pattern in choosing equity modes in using the Internet for international business.

All other non-Internet-related variables do not seem to have any significant effect on entry mode choice in Internet business. However, their  $\beta$  coefficients are all properly signed as predicted in the propositions put forward in Chapter 2. It suggests that although the results are not significant, market potential of Internet business in a particular country does influence the foreign market entry mode choice; a firm's ability to compete in Internet business does affect its decision on entry mode choice; and contractual risk and investment risk in a foreign country also influence entry mode choice. Moreover, READINESS does not have a significant effect on choosing equity modes. A trend is seen that the more a firm is ready for Internet business, the more likely it is that it will invest in a foreign country.

**Comparisons of Models 1 and 2:** If we compare the two models, we can see that the introduction of the Internet usage variables, READINESS, USAGE and SALE into Model 2 improved the amount of variance explained for MODE significantly - both Cox x Snell  $R^2$  and Nagelkerke  $R^2$  increased, from .38 to .52 and from .60 to .82 respectively. This indicates that when differing Internet usage was included to predict entry mode choice, the variance explained was increased from 38% to 52% and from 60% to 82%, according to different analysis methods. The -2 Log Likelihood ratio decreased from 46.60 to 24.09, which shows Model 2 is a better model than Model 1 (Hair et al 1995, p.280; Pardoe and Lundquist 1999; Wuensch

2002). To detect that the increase of the chi-square is not a result of the increase of the number of the predictors, change statistics was performed. The change chi-square is 22.50 at a significance level of .01. It indicates that the introduction of READINESS, USAGE and SALE has significantly increased the explanatory power of Model 2. This finding strengthens the author's hypotheses of the effect of the Internet usage on equity mode choice (Bryk and Rauderbush 1992).

#### **6.4.2 Hierarchical Multiple Regression**

In the existing literature, MODE was included together with the determinants of MODE to test their impact on performance, as in Brouthers (2002). Two types of performance were examined in the present research, the achievement of a firm's web site (ACHIEVEMENT) and the performance of a firm (PERFORMANCE). POTENTIAL, ABILITY, EXPERIENCE, CONRISK, INRISK, READINESS, USAGE, SALE and MODE were included in multiple regression models. In order to examine the effect of MODE, READINESS, USAGE and SALE in particular, 3 different models were built with Model 1 and Model 2 nesting in Model 3 (Rivett 1972). In Model 1, only the control variables, SIZE, INDUSTRY, EXPERIENCE, POTENTIAL, ABILITY, CONRISK, INRISK and DIGITISATION were included.

In Model 2, MODE was added in. It should be noted that MODE was the dependent variable in the logistic regression models and it became the independent variable in the multiple regression model. This is possible in this study because the function of a logistic regression model can be expressed as follows: from  $\vartheta$  ( $Y = 1$ ) =



$$\frac{P(Y=1)}{1-P(Y=1)} \quad (0 < \vartheta < \infty) \text{ to } L = \log_{\ell} \vartheta = \log_{\ell} \frac{P}{(1-P)} = a + bX_l + \varepsilon \quad (-\infty < L < \infty).$$

where  $\vartheta$  is the possibility of choosing equity modes. In the model,  $\log_{\ell} \vartheta$  ( $\log_{\ell} \text{MODE}$ ) is actually the dependent variable. However, in the multiple regression models, the dichotomous variable of MODE is the independent variable. This method has been used in studies such as Brouters (2002).

In Model, 3, the variables of Internet usage were added in, i.e. READINESS, USAGE and SALE. Model 3 is the full model, which can be expressed as follows:

ACHIEVEMENT (PERFORMANCE) =  $\beta_0$  +  $\beta_1$ SIZE +  $\beta_2$ INDUSTRY  
 $\beta_3$ EXPERIENCE +  $\beta_4$ POTENTIAL +  $\beta_5$ ABILITY +  $\beta_6$ CONRISK +  $\beta_7$   
 INRISK +  $\beta_8$  DIGITISATION +  $\beta_9$  MODE +  $\beta_{10}$  READINESS +  $\beta_{11}$  USAGE  
 +  $\beta_{12}$  SALE +  $\varepsilon$ . The focus in examining these three models was to investigate whether t values of each independent variable change and whether the  $R^2$ 's changed in explaining the variance. Tables 6.9 and 6.10 present the results of multiple regression analysis for ACHIEVEMENT and PERFORMANCE respectively.

#### 6.4.2.1 *Hierarchical Regression Estimates for the Achievement of a Web Site*

Hierarchical regression models were used to examine the effect of Internet usage on the achievement of a web site. Results are shown in Table 6.9. The Wald values are shown in parentheses and the significant coefficients are highlighted in bold numbers.

**TABLE 6.9      HIERARCHICAL REGRESSION ESTIMATES FOR ACHIEVEMENT**

Variables		Model 1	Model 2	Model 3
SIZE		-.08 (-.77)	-.05 (-.42)	-.09 (-.87)
INDUSTRY		-.26* (-2.37)	-.26* (-2.45)	-.31** (-2.88)
EXPERIENCE		.13 (1.17)	.28* (2.22)	.31** (2.11)
POTENTIAL		.05 (.50)	.07 (.76)	.05 (.49)
ABILITY		.48** (4.51)	.44** (4.25)	.37** (3.51)
CONRISK		-.10 (-1.09)	-.04 (-.41)	-.10 (-1.02)
INRISK		-.23* (-2.18)	-.28* (-2.64)	-.40** (-3.48)
DIGITISATION		-.15 (-1.41)	-.14 (-1.38)	-.21 (-1.84)
MODE			.29* (2.19)	.10 (.66)
READINESS				.06 (.51)
USAGE				.03 (.22)
SALE				.37** (2.77)
R <sup>2</sup>		.31	.35	.42
F		4.48**	4.71**	4.60**
Change statistics	R <sup>2</sup> change	.31	.04	.07
	F change	4.48**	4.81*	3.12*

\*\* P < .01      \* P < .05      Equity mode = 1



**In Model 1:** Special abilities of a firm (ABILITY), investment risk (INRISK), and industry type (INDUSTRY) have significant effects on ACHIEVEMENT ( $\beta = .48$ ,  $-.23$ , and  $-.26$  respectively). In particular, the more special abilities a firm has, the more foreign sales firms may obtain through the web and the more foreign customers will get to know about the firm and make initial contacts on the Internet. This is consistent with previous studies that investigated entry mode performance in a more conventional environment, in which the effects of Internet usage was not considered (e.g. Brouthers 2002; Nakos and Brouthers 2002). When the investment risk is perceived high, few foreign sales or customers will be obtained through the web ( $t = -2.18$ ). In this model, industry type matters ( $\beta = -.26$ ,  $t = -2.37$ ). It indicates that service firms seem to be better off than manufacturing ones in obtaining online sales and customers. It should be noted that this is not because it is easier to digitise services than products - digitisation does not have a significance effect at all ( $t = -1.41$ ).

**In Model 2:** Entry mode (MODE) was added as an additional predictor. Results show that special abilities of a firm (ABILITY), investment risk (INRISK) and industry type (INDUSTRY) remain their significant effects on ACHIEVEMENT. Nevertheless, it must be pointed out that the inclusion of MODE decreased the effect of ABILITY and increased the effect of INRISK and INDUSTRY in Model 2, as compared with Model 1. At the same time, having previous international experience (EXPERIENCE) started to have a significant effect on ACHIEVEMENT ( $\beta = .28$ ;  $t = 2.22$ ). This indicates that it is not a prerequisite to have previous experience to

obtain sales and customers through the web, but once a choice is made to invest in a foreign country, the duration of such experience affects the achievement of the web site. MODE itself has a significant positive effect on ACHIEVEMENT. This implies that firms that pursue equity modes outperform those that do not in terms of obtaining sales and customers on the web and making extra investment in Internet business ( $\beta = .29$ ,  $t = 2.19$ ).

**In Model 3:** When the variables of differing Internet usage were included, namely, READINESS, USAGE and SALE, having previous international experience (EXPERIENCE) and special abilities (ABILITY) a firm both have shown a significant positive impact on ACHIEVEMENT. This indicates that the more previous international experience a firm has, the more likely it is that the web site will achieve more. The more special abilities a firm has, the more likely it is that the web site will perform better in obtaining online sales and customers and the more likely more extra investment will be made in the web site. In comparison, investment risk (INRISK) shows a significant negative effect on ACHIEVEMENT. This indicates that the higher the investment risk in a foreign country, the more likely it is that the web site of a firm achieves poorly. Among these three variables of Internet usage that were included in Model 3, only SALE has a significant positive effect ( $t = 2.77$ ). This indicates that when firms provide online payment facilities, more online foreign sales are obtained; more foreign customers make their initial contact with the firm on the web and extra investment tends to be made.



Although RAEDINESS and USAGE have positive signs, their effects are not significant.

**Comparisons of Models 1, 2 and 3:** The 3 models were compared by using hierarchical multiple regression analysis results. It can be seen that Model 3 is better than Model 1 and Model 2, with  $R^2$  increasing significantly from .31 in Model 1 and .35 in Model 2 to .42 in Model 3. The F value increases from 4.48 in Model 1 and 4.71 in Model 2 and decreases slightly to 4.60 in Model 3, all at the significance level of .000. The change statistics results show that the inclusion of MODE in Model 2 brought about .04 increase in  $R^2$  and 4.81 in the F value (sig.< .00). The inclusion of READINESS, USAGE and SALE in Model 3 brought about .07 increase in  $R^2$  and 3.12 in F-value (sig. < .05). The increase in  $R^2$  by adding the variables of Internet usage after the control variables (.07) is statistically significant (at sig. < 0.05). This indicates that the control variables in the first block account for 31.2% of the variance in explaining the dependent variable. In addition, the inclusion of the variable of MODE accounts for 4.0% more variance in explaining the dependent variable. The variables of Internet usage, i.e. READINESS, USAGE and SALE account for 7.0% more in predicting the dependent variable.

#### **6.4.3.2      *Hierarchical Regression Estimates for the Performance of a Firm***

Hierarchical regression models were adopted to examine the effects of differing Internet usage on the performance of a firm. Results are shown in Table 6.10.

**TABLE 6.10    HIERARCHICAL REGRESSION ESTIMATES FOR PERFORMANCE**

Variable		Model 1	Model 2	Model 3
SIZE		-.02 (-.22)	-.02 (-.159)	-.08 (-1.06)
INDUSTRY		.25* (2.43)	.25* (2.41)	.08 (1.04)
EXPERIENCE		-.11 (-1.06)	-.08 (-.67)	-.11 (-.99)
ABILITY		.25** (2.50)	.24* (2.41)	.31** (3.85)
POTENTIAL		.14 (1.47)	.14 (1.49)	.11 (1.51)
CONRISK		-.29** (-3.24)	-.28** (-2.97)	-.35** (-4.75)
INRISK		.12 (1.22)	.11 (1.11)	.12 (1.41)
DIGITISATION		.44** (4.57)	.45** (4.55)	.08 (.86)
MODE			.046 (.37)	-.25* (-2.14)
READINESS				.61** (6.81)
USAGE				.32** (3.67)
SALE				-.04 (-.36)
R <sup>2</sup>		.38	.38	.67
F		6.12**	5.40**	12.48**
Change statistics	R <sup>2</sup> change	.38	.00	.28
	F change	6.12**	.13	21.15**

\*\* P < .01      \* P < .05      Equity mode = 1



**In Model 1:** ABILITY has a significant and positive effect on PERFORMANCE ( $P < .01$ ). This indicates that the more special abilities a firm has, the better it performs. Contractual risk (CONRISK) has a significant negative impact on PERFORMANCE ( $t = -3.24$ ). This shows that the higher the contractual risk in a foreign country, the lower the probability that a firm will be successful. Digitisation of products and services (DIGITISATION) plays a significant positive role in PERFORMANCE ( $\beta = .44$ ,  $t = 4.57$ ). This indicates that firms that can digitalise their products and services perform better than those that can not. Similarly, industry type (INDUSTRY) has a significant positive effect on PERFORMANCE ( $\beta = .25$ ,  $t = 2.43$ ). This shows that manufacturing firms outperform service firms.

**In Model 2:** When MODE was added into Model 2, however, the effects of ABILITY, CONRISK, INDUSTRY and DIGITISATION slightly decrease, with the  $t$  value dropping from 2.50 to 2.41, -3.24 to -2.97, 2.43 to 2.41, and 4.57 to 4.55 respectively, their significant effects on PERFORMANCE remaining the same. It should be noted that the new variable in Model 2, MODE itself does not have any significant impact on PERFORMANCE. This implies that when Internet usage is not included in the model, it does not matter whether a firm decides to invest in a foreign country or stay in its home country; as a firm's performance is not influenced significantly by mode types. It should be pointed out that this does not support Brouthers (2002).

**In Model 3:** The variables of Internet usage, READINESS, USAGE and SALE were added. Some variables lose their significant effects while others showed. For example, the significant effect of DIGITISATION on the performance of a firm (PERFORMANCE) loses its significant effect in Model 3. This implies that it does not matter on the performance of a firm whether products and services can be digitised. The significant effect of industry type (INDUSTRY) loses at the same time. It implies that firms in manufacturing and service industries have the same opportunity to be a good performer. No significant differences were observed among them. The significance of ABILITY and CONRISK are strengthened in Mode 3. There t values were increased from 2.41 in Model 2 to 3.85 in Model 3 and  $|-2.97|$  in Model 2 to  $|-4.75|$  in Model 3 respectively. These results indicate that the more special abilities a firm has, the better performance it will have; and the higher contractual risk in a foreign country, the less likely it will be a successful performer. MODE becomes negatively significant. This implies that the staying-home strategy is a better performer than the going-abroad one ( $\beta = -.25$ ,  $t = -2.14$ ) in using the Internet for international business.

READINESS and USAGE consequently show their significant positive effects on PERFORMANCE.  $\beta$  of READINESS is .61 ( $t = 6.81$ ) and  $\beta$  of USAGE is .32 ( $t = 3.67$ ). These indicate that the more a firm tries to prepare itself for Internet business, such as providing online customers services, disseminating information about the firm and products and services, and selling them on the Internet, the higher the probability that it will be successful. At the same time, the more a firm uses what the



Internet offers businesses, the more likely it is that it will be successful. SALE, however, does not have any significant effect on PERFORMANCE. If we relate the effects of SALE on ACHIEVEMENT and PERFORMANCE, we can see that the provision of online payment facilities on the web may bring new customers and more foreign sales (ACHIEVEMENT), still the performance of firms (PERFORMANCE) may not be improved.

**Comparisons of Models 1, 2 and 3:** In conclusion, with the variables of mode type (MODE) being added in Model 2, the  $R^2$  remains the same in Model 1 and 2, and the F value decreases from 6.12 in Model 1 to 5.40 in Model 2 at the significance level of .00. The incorporation of the Internet usage variables in Model 3, however, increases the  $R^2$ , from .38 in Model 2 to .67 in Model 3; at the same time, the F value increases from 5.40 in Model 2 to 12.48 in Model 3, both at a significant level of .00. The change statistics results show that  $R^2$  change is .001 in Model 2 and .28 in Model 3, and F-value change is .13 in Model 2 and 21.15 in Model 3. This indicates that the control variables in the first block as in Model 1 account for 38.3% of the variance in explaining the dependent variable. In addition, the variable of MODE accounts for 0.1% more in the variance of explaining the dependent variable. The introduction of the variables of READINESS, USAGE and SALE accounts for 28.2% more in explaining the dependent variable. The increase in  $R^2$  by adding the variables of using the Internet after the control variables (.28) is statistically significant at sig. < .00.

## **6.5 SUMMARY**

Data were analysed in this chapter. Some initial analyses were performed and results were presented before further analyses were conducted. Hierarchical logistic regression was adopted to examine the effects of differing Internet usage on entry mode choice. Results showed that two types of Internet usage have significant positive effects on entry mode. The introduction of the variables of Internet usage has significantly changed the effects of firm size and previous international experience on entry mode choice, and increased the explanatory power of the model. Hierarchical multiple regression was used to investigate its effects on the achievement of a web site and the performance of a firm. Results showed that selling products and services on the web have a significant positive effect on the achievement of a web site but it does not contribute significantly to the performance of a firm. Being ready for Internet business and using what the new technology offers businesses does not have any significant effect on the achievement of a web site but both have significant positive effects on the performance of a firm. Further discussion concerning the propositions and the implications on entry mode perspectives will be presented in Chapter 7.



## CHAPTER SEVEN

### DISCUSSION

#### 7.1 INTRODUCTION

In this chapter, propositions are discussed based on the results shown in the previous chapter. The impact of Internet usage on entry mode choice is discussed in Section 7.2. The significant impact of its introduction into entry mode studies is discussed in Section 7.3 and 7.4. Specifically, Section 7.3 deals with the impact of the Internet on the variables identified in the existing literature. Section 7.4 shows the impact of the Internet on entry mode perspectives. In Section 7.5, research results in relation to the achievement of a web site and the performance of a firm are discussed. Section 7.6 concludes the chapter.

#### 7.2 INTERNET USAGE AND ENTRY MODE CHOICE

We have seen the effects of differing Internet usage on entry mode choice in Chapter 6. They are summarised in Table 7.1, as follows.

**TABLE 7.1 EFFECTS OF INTERNET USAGE ON ENTRY MODE CHOICE**

Internet Usage	Effects on Equity Mode Choice
READINESS	+ (No Significant)
USAGE	- (Significant)
SALE	+ (Significant)



USAGE and SALE have significant negative and positive effects on choosing equity modes respectively. USAGE includes three types of Internet usage, 'to collect information about customers', 'to collect information for R&D', and 'to contact customers through the web'. Tiessen et al (2001) noted that the Internet enables firms to obtain all types of information on the web, which may be used for different purposes. For example, marketers are finding it easier to adapt their products inexpensively to local or national preferences owing to easy acquisition of local information (Quelch and Klein 1996). Collecting information is easy to be done in their home countries as long as firms have the Internet access (Samiee 1998a 1998b). Similarly, the Internet can be used to contact customers (Verity and Hof 1994; Sterne 1995; Quelch and Klein 1996; Hamill 1997). Much like fax and telephone, firms can contact their customers in their home country with the help of the new technology (Verity and Hof; Hamill 1997). Therefore, there is no need for firms to set up a foreign office.

SALE in the present research refers to selling products and services on the web by providing online transaction facilities. It has been found to have a positive effect on choosing equity modes in the present research. For several reasons firms need to launch their offices or subsidiaries in a foreign country. First, purchases over the web may result in the importation of products at the expense of local sales taxes and custom duties (Quelch and Klein 1996). Consequently, some local government may impose taxes on any product or service purchased online. In order to bypass such restrictions, some firms may choose to set up a subsidiary or a joint venture in a



foreign country. This reflects the FDI theory of exploiting imperfections (Buckley and Casson 1976; Czinkota et al 1996). Secondly, transactions are made through the web with the use of debit and credit cards (Palumbo and Herbig 1998). In some emerging markets, such as China, customers only have the cards issued by its national banks and they cannot make international purchases since foreign currency cannot be freely traded in China (more details can be found on the web site of its central bank [www.pbc.gov.cn](http://www.pbc.gov.cn)). Therefore, equity investment may be a better choice for foreign firms to attract local customers from such countries (Palumbo and Herbig 1998). Thirdly, as one interviewee pointed out in the pilot case studies, having a local presence may inject confidence into local customers for online shopping. Their worries may be reduced when a firm has a local presence.

The effect of the third type of Internet usage, READINESS, is positive but not significant. As Quelch and Klein (1996) and Samiee (1998b) argued, when a firm gets itself ready for doing business on the web, customers around the world can benefit from the extended range of products, services and information (Hamill 1997). There is a need for foreign operations, but not always. Explanations could be found in the literature. First, whether language and cultural barriers may still be the one is still being argued. For example, Palumbo and Herbig (1998) postulate that language is still a problem. Customers in certain countries, such as China and Japan, still prefer using their own language rather than English (Quelch and Klein 1996). But Samiee (1998a 1998b) argue their effects decrease. Therefore, it is not known whether foreign operations are a necessary choice in order to better serve local

customers. Secondly, if the free flow of information is not allowed in a foreign country, equity modes may not be a better choice to bypass such regulations (Caudill and Murphy 2000).

We have seen in Table 6.8 that the model without Internet usage (Model 1) only explained 38% variance, while its explanatory power increased significantly with its introduction to 52%. This implies that previous entry mode perspectives, without taking into account Internet usage, could not offer a more comprehensive framework (Bell and Young 1998). The position to examining Internet usage reflects the PEST model (Czinkota et al 1996) that international business is influenced by the political, economic, social and technological factors in a foreign market. The results also support it.

### **7.3 PROPOSITIONS DISCUSSION**

The introduction of Internet usage has changed the effects of some variables on entry mode choice that have been identified in the literature. Table 7.2 concludes the present research findings with regards to propositions compiled in Chapter 2.



**TABLE 7.2      DATA ANALYSIS RESULTS AND THE PROPOSITIONS**

P. No.	Expected $\beta$	Research Findings
1	No impact	Supported with significant results
2	–	Supported with significant results
3	+	Supported without significant results
4	+	Supported without significant results
5	–	Supported without significant results
6	+	Supported without significant results

**7.3.1      Firm Size and Entry Mode**

In the literature, firm size is found to be positively related to choosing equity modes (e.g. Buckley and Casson 1976; Caves and Mehra 1986; Cho 1985; Yu and Ito 1988; Nakos and Brouthers 2002). In other words, when a firm has a large amount of resources, it tends to choose equity modes such as joint ventures and wholly-owned subsidiaries to enter a foreign market. However, in the present research, it is proposed that when the Internet is used, the physical resources are not as important because other intangible assets, such as human capital, organisation learning and a network of relationships can create competitive advantages (Dunning and Wymbs 2001). Therefore, there is no difference between small and large firms in terms of choosing entry mode when the Internet is used.

The findings of the present research support the proposition. The  $\beta$  coefficient is close to zero at a significance level of .05, which indicates that there is no

significant impact of firm size on entry mode at all. Such findings support some emerging literature on the impact of the Internet on international business regarding the argument that the Internet helps to lower certain costs, such as those associated with advertising and communication (Cronin 1996; Nath et al 1998), distribution (Hoffman and Novak 1996a 1996b) and it offers opportunities especially for SMEs to market their products and services internationally (Palumbo and Herbig 1998). Oviatt and McDougal (1998) argue that the Internet has diminished the advantages previously held by large multinational corporations. As a result, the requirement of internationalisation is lowered (Hamill and Gregory 1997; Bennett 1997; Oviatt and McDougal 1998)

### **7.3.2 Previous International Experience and Entry Mode**

We have seen in Table 6.8 that previous international experience has a significant negative effect on choosing equity modes in Model 1. In this model, the Internet usage is not included and therefore can be compared to the existing literature. Such results do not support Caves and Mehra (1986), Gatignon and Anderson (1988) and Terpstra and Yu (1988). They contend that firms with more previous international experience are likely to choose equity modes. It should be pointed out that there is a difference between the characteristics of the samples in the above mentioned studies and the present one: firms that are studied in the above mentioned ones are large multinational corporations, while the majority of firms in the present research are small-sized. However, if we compare our results to studies into internationalisation of small and medium-sized enterprises (SMEs), some similar findings are observed.



For example, SMEs can acquire the necessary knowledge and experience of foreign markets through an incremental process (Lau 1992; Bodur and Madsen 1993) and the duration of previous international experience can be shortened in their internationalisation. Therefore, they do not follow the customary successive stages of internationalization (Oviatt and McDougal 1994). The same findings are presented in the research.

In Model 2 when the variables of Internet usage are incorporated, the significant negative effect of previous international experience further increases. This supports Proposition 2. Results in the present research show that firms do not need to have any previous international experience to invest in a foreign country. This seems to support the notion of Quelch and Klein (1996) that ‘any company that establishes a site on the Internet automatically becomes a multinational company’ (p.62). This is made true because firms use the Internet to attract foreign customers. This can be explained by the following. First, it has been found that online consumer patterns tend to converge despite their socio-demographical differences (Bennett 1997). As long as firms have an attractive web site, they will obtain online customers despite the duration of their previous international experience (Hamill and Gregory 1997; Quelch and Klein 1996). Secondly, experience conventionally is regarded as a major source to create international market knowledge, as emphasised in Johanson and Vahlne (1977) and Eriksson et al (1997). However, in the era of E-commerce, it is argued that experience is not the only source of creating market knowledge;

innovation and networking are value-added activities that create knowledge (Cartwright and Oliver 2000).

### **7.3.3 Special Abilities and Entry Mode**

It was shown in the previous chapter that special abilities a firm has concerning the new technology are positively associated with choosing equity modes. Proposition 3 is supported, although the effects are not significant. Such results also support the existing literature on equity mode choice as a result of having high special abilities (Davidson 1980; Anderson and Coughlan 1987; Kogut 1989; Collins 1991). Nevertheless, it should be noted that special abilities in the studies mentioned above are related to any know-how firms have, e.g. know-how on a technology or a product; while in the present research, special abilities are concerned with using the new technology for international business (Agarwal 1994). In the present research, this type of ability has been considered as know-how by firms in Hong Kong. As a result, they do not want to share it in transactions (Agarwal and Ramaswami 1992; Nakos and Brouthers 2002).

### **7.3.4 Market Potential and Entry Mode**

In the existing literature, market potential refers to the attractiveness of a foreign market (Aharoni 1966; Forsyth 1972; Weinstein 1977). It is positively correlated with choosing equity modes (Khoury 1979; Choi et al 1986; Terpstra and Yu 1988; Agarwal and Ramaswami 1992). As Harrigan (1984) asserts, firms tend to avoid resource commitment in a foreign country with low market potential because such a



country can not secure returns on investment. In countries with higher market potential, equity modes are expected to provide greater and long-term profitability to a firm, compared to non-equity modes, through the opportunity to achieve economies of scale and consequently lower marginal cost of production (Sabi 1988). In the present research, such a relationship is supported, although market potential is re-defined in the present research, according to some studies, e.g. Bennett (1997). Samiee (1998a). It is measured with the use of Internet penetration in a country - the more Internet users there are in a country, the higher the market potential (Bennett 1997; Samiee 1998a). The impact of market potential is positive but the effects are not significant. However, such a result indicates that Internet penetration can be used to measure market potential in the context of doing business through the Internet. At the same time, it implies that, as Tian and Emery (2002) argue, once launching a web site, firms do not aim a particular market. Customers come from all over the world as long as they have interest in the product and service available online (Bennett 1997).

### **7.3.5 Investment Risk and Entry Mode**

Investment risk refers to barriers to foreign direct investment. It has been discovered that higher investment risk in a country seems to receive less equity investment (Root 1987). When investment risk is perceived to be high, the uncertainty over the stability of present economic and political conditions is also perceived to be high. Firms are wary of repatriation of earnings and, in some extreme cases, repatriation of assets (Root 1987; Agarwal and Ramaswami 1992). Such an effect will not

change when the Internet is used, as proposed in the present research. Results support the argument, although the effects are not significant. This may indicate that when a firm uses the Internet to conduct international business, its investment in a foreign country is still influenced by country risk and country risk still determines how much resource to commit. There might be one reason why the effects are not significant: when the present research was conducted, the HKSAR Government showed its full support to businesses in using the Internet. Consequently, local businessmen might think the investment risk of Internet business in other countries is as low: the mean of INRISK is 4.57 in the present research.

### **7.3.6 Transaction Cost and Entry Mode**

Traditionally, it is believed that lower transaction costs lead to non-equity modes (Hennart 1988; Brouthers 2002). When transaction costs are high, a firm is wary of sharing its know-how, or any other special knowledge it might possess with other firms, for fear of losing its competitiveness. Results in the present research show support to the literature as well as the proposition. In the context of using the Internet for international business, coordinating costs within and between organisations are reduced (Dunning and Wymbs 2001). Such equal opportunities are provided to all buyers and sellers who want to deal on or with the Internet no matter whether they are small-size or large-sized firms (Quelch and Klein 1996). Therefore, managers are provided with all necessary information so that they are able to avoid any costs incurred in a transaction. In the present research, results, although not significant, show that non-equity modes are not the only choice even if



transaction costs are lowered. This is because, as Dunning and Wymbs (2001) argue, firms using the Internet tend to be more focused on their core competence, and outsource a higher proportion of their non-core activities. There appears to be a fundamental reordering of firms using the Internet world, based on whether market-specific transaction costs are decreasing as fast as firm specific coordination benefits are increasing (Dunning and Wymbs 2001).

## **7.4 THE INTERNET AND ENTRY MODE PERSPECTIVES**

Five broad entry mode perspectives are identified in the present study. None of them investigates the impact of the Internet. Research results show that two types of Internet usage have significant effects on entry mode choice. In particular, using what the Internet offers businesses has a significant negative effect and using the Internet to sell products and services online has a positive one on choosing equity modes. The third type of Internet usage, getting ready for Internet business, does not have any significant effects, although it is positively signed. As seen in Section 6.4.1, with the introduction of variables of Internet usage, the explanatory power of the entry mode prediction model has been significantly increased. This indicates that entry mode theorising should incorporate the variables of Internet usage.

### **7.4.1 The Internet and the U- and I-models of Internationalisation Process Theory**

Having previous international experience has been found to have the significant negative effect on choosing equity modes. It is opposite to that described in the

traditional entry mode perspectives, such as the U-model of internationalisation process theory (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977; Johanson 1990). The findings in the present research support some criticisms regarding one assumption of the U-model that firms are reluctant to initiate exports (Bell and Young 1998). It has been found that in contrast to US firms, European firms (Dichtl et al 1984) and firms from newly-industrialised countries such as Singapore and Hong Kong (Wong and Kwan 1988; Ibeh and Young 2001) consider exporting as a viable strategy to secure profitability. In the present research, only 23% firms did not have any foreign customers before the advent of the Internet. They are much less fixated on the notions that indigenous firms are reluctant exporters, and that their internationalisation processes are progressive. Lau (1992) therefore argues that firms in such countries follow an incremental internationalisation process.

Research findings in the present study show that previous international experience is negatively important to resource commitment. This indicates that having previous international experience is no longer an important source to generate market knowledge, which does not support Johanson and Vahlne (1977). Our findings support the study of Cartwright and Oliver (2000). They argue that networking and innovation are replacing physical processes as value-added activities to create knowledge. When the Internet first emerged, firms that adopted it became networked (Hamill 1997). If they were innovative in their approach to the new technology, they could gain market knowledge useful for international expansion (Peng and Illinitch



1998). This however supports the I-model of internationalisation process theory (Bilkey and Tesar 1977; Bilkey 1978; Cavusgil's 1980, 1984; Andersen 1993; Barkema et al 1996). The I-model posits that if firms are innovative, their fast learning about foreign markets may help them go through an incremental process (Bilkey and Tesar 1977; Bilkey 1978; Cavusgil's 1980, 1984). In other words, firms' internationalisation has little to do with previous experience but their innovativeness.

To investigate the impact of the Internet on internationalisation process theory, we also need to combine the effects of firm size with the variable of having previous international experience. Findings of firm size indicate that physical resources are no longer the only assets a firm possesses, because it loses its impact on choosing equity modes. As Dunning and Wymbs (2001) argue, in the Internet era the creative applications of human capital, organisational learning and a network of relationships, both internal and external to the organisation, are becoming the new rare and non-transferable assets. This corresponds to the finding of having previous international experience in the previous paragraph. If firms are innovative and learn through the adoption of the new technology, they can gain sufficient market knowledge for their international expansion (Peng and Illinitch 1998; Cartwright and Oliver 2000).

Accordingly, we conclude that in the era of Internet business the U-model of internationalisation process theory is less useful in predicting the entry mode of firms in less developed countries than the I-model.

#### **7.4.2 The Internet and Organisational Capabilities Perspective**

As we have seen in Chapter 2, organisational capabilities perspective posits that when firms have special abilities, they tend to pursue non-collaboration modes to avoid sharing them with their partners; when they do not have sufficient abilities, they tend to choose collaboration modes to learn from their partners (Madhok 1997). Very often, firm size has been found to be correlated with such abilities (Caves 1971). However, the present research shows that there is no difference between the way large and small firms' use of the Internet for international expansion. This indicates that firm size may not be an indicator of possessing organisational capabilities and therefore supports Oviatt and McDougal (1998). They argue that the Internet is a low-cost technology and it has diminished the importance of some advantages that only large corporations tend to possess. In the era of Internet business, firms may gain capabilities through the adoption of the new technology and by doing business via the Internet, as argued by Davis (1989) and Tiessen et al (2001).

Through doing business on the web, firms can achieve some objectives more easily than through doing business in traditional ways. Dunning and Wymbs (2001) found that some firms, for example, K-Mart and Wal-Mart form alliances on the Internet. In many ways, these alliances are similar to strategies adopted by large multinational corporations in the 1980s in an attempt to expand their territorial boundaries (Kogut 1989). Dunning and Wymbs (2001) argue that what is different today is that firms are expanding in cyber space rather than in the marketplace. Cyber space offers low



costs for firms to gain organisational capabilities through virtual alliances (Tiessen et al 2001). Therefore, Rifkin (2000) argue that firms are more likely to use the space to access resources and capabilities rather than to extend their ownership of them.

Although the variable of special abilities has not been found to have a significant effect in the present research, the positive coefficient may indicate that such organisational advantages are still important, because evidence shows that equity modes are still favoured by firms that want to exploit such capabilities (Madhok 1997). This supports the argument for the importance of special abilities of indigenous firms (Hymer 1960; Kindleberger 1969; Caves 1971). Dunning and Wymbs (2001) argue that these abilities are associated with learning about Internet business, and 'its various components can be replicated and coordinated in diverse industries' (p.277). In the present research, a tendency has been detected that service firms favour equity modes over non-equity modes and manufacturing firms favour non-equity modes over equity modes. This indicates that the organisational learning process of service firms is different from that of manufacturing firms (Erramilli and Rao 1989). All the above can certainly be used to extend organisational capabilities perspective.

#### **7.4.3 The Internet and Contingency Theory**

Market potential and investment risk are the two factors that are derived from contingency theory. They have been found to have positive and negative effects

respectively. Such a finding supports the traditional studies of entry mode choice (Choi et al 1986; Terpstra and Yu 1988; Agarwal and Ramaswami 1992; Chen and Hu 2002). However, their effects are not significant, indicating that both market potential and investment risk are still important for studying entry mode in the era of Internet business. In fact, we may go further.

First, according to Dosi (1988), market potential (specifically, opportunities and the pattern of consumer demand) may also influence firms' innovativeness. This indicates that the environment of a firm does have impact on entry mode choice, but also influences the adoption of the Internet (Dosi 1988). Secondly, Bennett (1997) and Samiee (1998a) suggest that the use of the Internet in a particular country may be used as an indicator of market potential. Balabanis and Vassileiou (1999) argue that people's perceived acceptance of Internet business in a particular country may be used as an indicator. Their suggestion has been adopted in the present research and the results show support to studies in which traditional market potential measures were used (Agarwal and Ramaswami 1992; Brouthers 2002). All the above certainly has created a platform for future research in light of contingency theory.

As we argue in Chapter 2, investment risk may retain its effect if firms commit resources in a foreign market, and it may lose its effect if firms reach international customers through the Internet. This raises the question of the differences between traditional firms vs E-commerce firms in their international expansion (Quelch and Klein 1995). Dunning and Wymbs (2001) state that E-commerce firms are network-



based and returns increase rather than decrease when they produce additional, or sell existing, products in cyber space. Unlike traditional firms, these E-commerce firms enter foreign markets instantaneously when their products and services are posted on the Internet (Quelch and Klein 1995). This indicates that new dimensions of investment risk need to be explored in order to understand E-commerce firms, which traditional studies have not yet identified (Anderson and Coughlan 1987; Eaton et al 1986; Caves and Mehra 1986; Root 1987; Agarwal and Ramaswami 1992)

#### **7.4.4 The Internet and Transaction Cost Analysis**

Transaction cost has been lowered since the advent of the Internet for several reasons (Timmers 1999; Dunning and Wymbs 2001). First, the Internet has created a competitive environment for business, providing near-perfect conditions for low transaction cost (Tiessen et al 2001) – ‘more choice should lead to more competition and lowered supply costs should lead to lower prices’ (Timmers 1999, p.22). Williamson (1971), Hennart (1988) and Erramilli and Rao (1993) argue that a competitive market creates high pressure to ensure a contract to be honoured. Secondly, Dunning and Wymbs (2001) argue that owing to abundant information available on the Internet, information asymmetry is achieved and bounded rationality is avoided, which helps reduce transaction cost (Williamson 1971). Nevertheless, the present research has found evidence that transaction costs may still be high in some cases, since some firms continue to prefer high control modes (equity modes against non-equity modes). This indicates that when doing international business over the Internet, some firms still need to use traditional entry

modes such as joint ventures and wholly-owned subsidiaries. As a result, they still have opportunities to make contracts with firms in the host country. Issues raised here include traditional firms vs E-commerce firms (Dunning and Wymbs 2001) and traditional modes such as joint ventures and wholly-owned subsidiaries (Root 1987) vs expansion on the Internet (Dunning and Wymbs 2001).

The above indicates that transaction cost analysis may still be useful in studying entry modes when traditional modes are involved. Moreover, we need to think further about the implications of transaction cost analysis in the era of Internet business. How much transaction cost can the Internet reduce? Firms use the Internet to disseminate information, but to what extent information asymmetry can be achieved (Williamson 1971) remains a question to answer. The more information is available, the lower prices will be and the more firms will be forced to innovate (Dunning and Wymbs 2001). This has created a fertile ground for further research on transaction cost and its impact on entry mode choice.

#### **7.4.5 The Impact of the Internet on the Eclectic Framework**

As discussed in Section 2.3.5, the eclectic framework takes a more comprehensive viewpoint to investigate entry mode choice (Hill et al 1990; Andersen 1993). The three aspects the framework focuses on are ownership, location and internalisation. As seen above, the Internet has influenced the impact of firm size on choosing equity modes. Both large and small firms have been found to follow the same pattern in terms of choosing equity modes over non-equity modes, which is different



from the previous findings, such as Yu and Ito (1988) and Terpstra and Yu (1988). Dunning and Wymbs (2001) believe that while the Internet is changing the context and scope of the core competences of firms, ownership advantages are still an important discriminator in their strategic positioning and commercial success. They argue that the ability to 'work efficiently and harmoniously with other firms' (p.277) and to 'include intangibles as specialisation, speed, the ability to harness and deploy critical assets' (p.280) are ownership advantages in the new era (Dunning and Wymbs 2001). This may be used to extend the eclectic framework to study entry modes.

The present research also shows that market potential and investment risk may retain the impact on choosing equity modes. Dunning and Wymbs (2001) point out that the location advantage first deals with 'the separation of goods with a high digital content from those without' (p.282). Some digital products and services such as music and banking can be purchased and delivered online (Benjamin and Wigland 1995). Therefore, what matters in the new era is information accessibility of firms (Hamill 1997; Dunning and Wymbs 2001). This raises the issue of Internet penetration of a country (Bennett 1997; Samiee 1998a). Secondly, the location advantage in the new era depends on whether the firm is an E-commerce firm, as argued Dunning and Wymbs (2001). Unlike traditional firms that spend money on launching foreign operations and hiring people with market knowledge, these E-commerce firms expend resources to adapt its site culturally to a particular region. Thirdly, Dunning and Wymbs (2001) argue that the location dimension 'pertains to

domestic government policies toward the basic telecommunication and operating legal environment' (p.283). Bond (1998) points out that the quality of the telecommunication infrastructure is the driver of information revolution and such a structure once established tends to be location bound.

Transaction cost has not been found in the present study to have a significant effect. Dunning and Wymbs (2001) found that the willingness and ability of firms to internalise markets depends on the type of intermediate products and end products being supplied. For example, firms like Amazon.com, when supplying products directly to the final consumer, discover some potential to expand horizontally and internalise different markets (Taylor 1999).

Therefore, as Dunning and Wymbs (2001) argue that all the dimensions of the eclectic framework are not fully 'fleshed out' (p.295). They believe that the Internet has, and will continue to provide greater access to information and to opportunities to build relational assets both within and between firms. All the above indicates that a fertile ground will be provided by Internet business for future research in light of the framework (Dunning and Wymbs 2001).



## **7.5 THE ACHIEVEMENT OF A WEB SITE AND THE PERFORMANCE OF A FIRM**

### **7.5.1 Entry Mode, Achievement and Performance**

Entry mode perspectives assume that firms will select the mode that provides the best return on investment (Woodcock et al 1994; Brouthers et al 1999). In other words, there is an association between mode types and the performance of firms (Woodcock et al 1994; Shelanski and Klein 1995; Shrader 2001; Brouthers 2002). For example, Woodcock et al (1994) compared the performance of new ventures, joint ventures and acquisitions in terms of gain, break-even and loss; and discovered that new ventures outperform joint ventures and joint ventures outperform acquisitions. In the present research, equity modes have been found to have no significant impact on the achievement of a web site ( $\beta = .10$ ,  $t = .66$ ) but has a significant negative effect on the performance of a firm ( $\beta = -.25$ ,  $t = -2.14$ ). In other words, the achievement of their web sites is the same no matter where firms operate, in their home countries only or in foreign ones. However, their performance differs: those that operate in their home countries perform better than those that have foreign operations.

Such results have many implications. First, as pointed out in some studies, e.g. Hood and Young (1979) and Terpstra and Sarathy (2000), firms may encounter an unfamiliar environment when investing in a foreign country, which may cost them to get to know about local markets. Secondly, investing in a foreign country involve both financial and human resources. Such investment may not have an immediate

return (Harrigan 1984). Thirdly, equity modes are not as efficient as non-equity ones. As previous studies showed, joint ventures are intrinsically inefficient because of the inherently complex management relationships (Janger 1980; Killing 1983); and new ventures are highly risky and have highly variable performance outcomes (Drucker 1974; Burgelman 1983, 1985; Hill and Jones 1989).

### **7.5.2 Internet Usage, Achievement and Performance**

An interesting finding in the present research is on the relationship of Internet usage with the achievement of a web site and the performance of a firm. Using what the Internet offers businesses: to contact customers and to collect information available for R&D purposes and to know about competitors (USAGE), and getting a firm ready for Internet business: to disseminate information, to open online communication channels and to set up a web service department (READINESS) have been discovered in the present research to have no significant effects on the achievement of a web site. However, both of them have been found to be able to increase the performance of a firm significantly. The results may encourage more firms to improve the performance of a firm by using the Internet in the two ways mentioned above.

It is equally interesting to discover in the present research that having online payment facilities brings more online sales and foreign customers – the  $\beta$  coefficient of SALE for ACHIEVEMENT is .37 ( $t = 2.77$ ). However, the performance of a firm is not improved with the provision of online payment



facilities ( $\beta = -.04$ ,  $t = -.36$ ). This may indicate that the cost of providing and maintaining online facilities exceeds the benefits it offers. Therefore, managers should be cautious when thinking about providing online payment facilities.

Table 7.3 concludes the present research findings regarding the effects of Internet usage on the achievement of a web site and a firm’s performance.

**TABLE 7.3            EFFECTS OF INTERNET USAGE ON ACHIEVEMENT AND PERFORMANCE**

Internet Usage	ACHIEVEMENT	PERFORMANCE
READINESS	+ (Not Significant)	+ (Significant)
USAGE	+ (Not Significant)	+ (Significant)
SALE	+ (Significant)	- (Not Significant)

**7.5.3            Firm Size, Achievement and Performance**

Firm size can reflect the ability to absorb costs associated with various entry modes (Casson and Buckley 1985). Previous studies indicate that even among a relatively homogeneous group of new ventures, firm size influences the resources available to them, the strategies they pursue and their performance (Shrader and Simon 1997). It is found in the present research that firm size has no significant impact on the achievement of a web site and the performance of a firm. However, the negative sign



of  $\beta$  coefficients may indicate that smaller firms and their web sites perform better than their larger counterparts and their web sites.

Explanations can be found in the literature (Quelch and Klein 1996; Hamill and Gregory 1997). Quelch and Klein (1996) stated that small firms, even those that offer specialised niche products, 'should be able to find the critical mass of customers necessary to succeed through the worldwide reach of the Internet' (p.78). Hamill and Gregory (1997) posited that 'effective use of the Internet may assist small and medium-sized firms to become more internationally oriented' (p.18). This finding supports Shrader (2001) and Brouthers (2002). The former concluded that smaller collaborators outperform their larger counterparts, and the latter showed that smaller wholly-owned subsidiaries outperform their larger counterparts.

#### **7.5.4 Previous International Experience, Achievement and Performance**

Internationalisation process theory posits having previous international experience is an advantage (Johanson and Vahlne 1977 1992; Eriksson et al 1997). The underlined notion is that the more previous international experience a firm has, the better it performs. In the present study, previous international experience has been found to have a significant positive impact on the achievement of a web site ( $\beta = .31$ ,  $t = 2.11$ ). No significant effect has been observed on the performance of a firm. This may imply that when a firm launches its web site, its existing customers tend to shop online or make online contacts; and the more previous international experience it has, the more existing foreign customers it has. Therefore, the web site seems to



have achieved a lot both in terms of foreign sales and customers. However, since the sales and customers obtained online are not extra ones a firm obtains, the performance of a firm is not improved significantly. Findings in the present research support previous studies. For example, Brouthers (2002) concluded that no significant effects were discovered of previous international experience on the performance of firms. Although it had a positive sign, the effects were rather trivial ( $\beta = .01$ ) (Brouthers 2002).

#### **7.5.5 Special Abilities, Achievement and Performance**

In the present research, special abilities have been discovered to have significant positive effects on the achievement of a web site and the performance of a firm. This supports the definition of special abilities in the present research, which refers to the competitiveness of a firm in Internet business. Obviously, the more special abilities a firm has concerning the use of the new technology, the more competitive it is and the better performance it has. According to Quelch and Klein (1996), both MNC and small firms tend to adopt the Internet for international business, although they follow different patterns. Given the fact that a firm will win with higher competitiveness, those who may utilise Internet's potential to improve its competitiveness will be better off (Hamill and Gregory 1997). Having a major education and training initiative is important, so is investing in human capital as well as Internet business. The same findings have been seen in Shrader (2001), in which R&D intensity is significantly positively associated with the profitability of a firm. The more

investment a firm makes in R&D, the more likely that it will acquire more special abilities, which improves its performance (Shrader 2001; Brouthers 2002).

#### **7.5.6 Market Potential, Achievement and Performance**

Terpstra and Yu (1988) and Chen and Hu (2002) content that markets with high potential are attractive for foreign investment, since higher market potential can secure long-term profitability and a large proportion of market share (Choi et al 1986; Agarwal and Ramaswami 1992). The positive relationship between market potential and the performance of a firm has been evidenced in Brouthers (2002). In the present research, however, market potential was not found to have any significant impact on the achievement of a web site and the performance of a firm, although  $\beta$  coefficients were properly signed ( $\beta = .05$  for ACHIEVEMENT and  $\beta = .11$  for PERFORMANCE). This supports Shrader (2001), in which market potential has a positive impact on profitability of a firm yet without any significance. It also supports the nascent literature, such as Samiee (1998b), who pointed out that the adoption rates of the Internet in developed countries vary and thus the potential of doing Internet business varies across countries to countries (p.421).

#### **7.5.7 Investment Risk, Achievement and Performance**

If investment risk in a foreign country is high, it means that transfer cost and other economic cost is high (Meldrum 2001). Therefore, the performance of a firm is negatively influenced in a foreign country with high investment risk (Hood and Young 1976; Agarwal and Ramaswami 1992). Mixed findings were presented in the



present research. Investment risk has been found to have significantly negative effects on the achievement of a web site. It may indicate that when investment risk is perceived high in a foreign country, firms are not keen on doing business through the web as they fear of being imposed of any taxes or custom duties by the government in the host country (Quelch and Klein 1996). However, investment risk had a positively association with the performance of a firm, although the effects were not significant. It should be noted that such an effect existed on the condition that non-equity modes are chosen. It implies that staying home to avoid high investment risk may improve a firms' performance. Even if the Internet is introduced, it cannot reduce the effects of investment risk that equity investment encounters in a foreign country (Dunning and Wymbs 2001). Such results may encourage more firms that do not have any foreign operations to use the Internet for international business, simply because investment risk is not an issue to consider in business. The same findings have been shown in Brouthers (2002). The effects of investment risk on financial and non-financial performance are both significantly positive.

#### **7.5.8 Transaction Cost, Achievement and Performance**

It has been shown in previous studies that transaction cost negatively impacts on performance (Nakos and Brouthers 2002). This is supported by results in the present research - transaction cost has been found to have a significant negative effect on the performance of firms ( $\beta = -.35$  and  $t = -4.75$ ). The effect could be intensified if a firm chose non-equity modes while it could be decreased if it chose equity modes.

Most non-equity modes involve transactions between firms, such as exporting, licensing, and franchising. This support transaction cost analysis that firms do not prefer transactions when transaction cost is high (Williamson 1979). Equity modes, particularly, wholly-owned subsidiaries, are a better choice when transaction cost is high. In the present research, transaction cost has been found to have a negative impact on the achievement of a web site, which is not significant though. This implies that high transaction cost does not encourage doing business on the Internet when a firm has foreign operations. The effect of transaction cost on staying home strategy is less.

## **7.6 SUMMARY**

This chapter provides argument on the impact of Internet usage on entry mode choice, the achievement of a web site and the performance of a firm. Results showed that selling products and services online encourages equity modes but using what the Internet offers businesses does not. Getting ready for Internet business does not have any significant impact on equity mode choice. Discussion is provided over the propositions put forward to address the present research questions. Results showed that only two propositions were supported with significant results and other four propositions were supported without significant results. Implications were provided during the course of discussion. The effects of Internet usage and other variables on the achievement of a web site and the performance of a firm were also discussed. Any special abilities a firm has concerning the use of the new technology is the only factor that contributes to both. Selling products and services on the web can improve



the achievement of a web site, but cannot do the performance of a firm. In comparison, being ready for Internet business and using what the new technology offers to businesses does not contribute to the achievement of a web site yet can improve the performance of a firm significantly.

## **CHAPTER EIGHT**

### **CONCLUSION**

#### **8.1 INTRODUCTION**

This chapter concludes the thesis. Overviews and contributions of the thesis are discussed and presented in Section 8.2. Limitations are discussed in Section 8.3 and finally, in Section 8.4, future research directions are provided.

#### **8.2 OVERVIEW AND CONTRIBUTIONS OF THE RESEARCH**

The major objective of the present research was to investigate the impact of the Internet on entry mode choice and the performance of a firm. The findings have important research and managerial implications, which will be discussed in the following.

##### **8.2.1 Theoretical Contributions**

###### **8.2.1.1 *The Impact of Internet Usage on Entry Mode Theorising***

Different theoretical perspectives have contributed to our understanding of entry mode. Internationalisation process theory posits that knowledge about foreign markets is so important that firms with more knowledge are more confident in committing resources. Previous international experience is regarded to be a market knowledge creator accordingly. Transaction cost analysis considers costs incurred in transactions to be the factor that influences entry mode decisions. When transaction cost is high in a country, a firm is likely to choose a mode that will reduce such



costs. Organisational capabilities perspective emphasises the role of any international capabilities a firm has in entry mode decision. Contingency theory highlights the contingencies in the environment upon which a firm's decision on entry strategies are made. Therefore, market potential and investment risk in a foreign country are taken into consideration for entry mode choice. The eclectic framework takes a more holistic approach and emphasises the importance of the international resources of a firm, the external contingency of a foreign market and transaction costs. However, none of these perspectives has included the impact of new communication technologies, such as the Internet. The Internet has changed many basic concepts upon which these perspectives are based, e.g. transaction cost. Many firms now upload information onto the web. This has created tremendous opportunities for business partners as well as customers to find out about products and services available. It has thus created a highly competitive environment. Such intense competition and information asymmetry has minimised transaction costs because business partners do not need to be supervised, for fear of being replaced by their competitors. According to transaction cost analysis, if transaction costs are reduced significantly, more non-equity modes should be expected in the era of e-commerce.

Results in the present research show that two types of Internet usage have significant effects, i.e. USAGE and SALE. Specifically, using what the Internet offers businesses (USAGE): to collect information and to contact customers, the more likely it is that firms will stay in their home country, rather than committing

resources in a foreign country. If firms sell products and services online (SALE), they tend to launch a foreign operation. Research results also show that when Internet usage is included in the entry mode choice model, the explanatory power has been increased significantly.

#### **8.2.1.2      *Differing Usage of the Internet***

The impact of the Internet on business has been noted in a large number of previous studies, such as Cronin (1996), Sterne (1995), Quelch and Klein (1996), Bennett (1997), Hoffman and Novak (1996a), Hamill and Gregory (1997), Nath et al (1998). However, they have all focused on the comparison between firms that have adopted the Internet and those that have not. There is a methodological problem associated with such an approach. Since the characteristics of the two groups of firms are so different, there will be many other factors, such as the motives of adopting or not adopting the new technology, that need to be taken into account in order to identify any plausible research results. In the present research however, only firms that have adopted the Internet are investigated. Their different uses of the Internet are taken into consideration as well as other factors within a firm and the environment. Different uses of the Internet include 1) providing online customer service to improve relationships; 2) disseminating information about the firm, product and services; 3) selling products and services online and 4) collecting information to conduct market research. This method is considered to be better as it can focus on differing usages without considering other variables to explain entry mode choice.



Results confirm that two types of Internet usage have significant effects on entry mode choice.

#### **8.2.1.3      *Measuring Internet Usage***

Internet usage has been studied in the literature for some time. It is argued that the Internet can be used in four different ways, to improve relationship with customers, to disseminate information about the firm, products and serviced provided, to collect information for market research, and to sell products and services online. However, no previous study has been conducted to measure these uses. In the present research, the Internet usage was measured based on some suggestions in the literature. First, the relational use of the Internet is measured with four items: ‘to contact customers and clients via email’; ‘to provide customer service online’; ‘to receive feedback via email’; and ‘to have some web-based customer service personnel’. Secondly, the informational use of the Internet is measured with three items: ‘to disseminate information about the firm’; ‘to disseminate information about products and services provided’; and ‘to have an online presence’. Thirdly, the market research use of the Internet includes three items: to collection information for R&D; to collect information about customers; to collect information about competitors. They were validated in the pilot case studies and tested in the mail survey. The validity test (factor analysis) results show that two items of relational use of the Internet (to receive feedback via email and to have some web-based customer service personnel) and all three items of the informational use come under the same component and it was named as READINESS. The Cronbach’s coefficient Alpha is .64. Only two

items should be included in one component, USAGE (to collect information for R&D, and to collect information about competitors), together with one item from the relational use (to contact customers online). The Cronbach's coefficient Alpha is .82. Such results indicate that measures used in the present research for Internet usage are reasonably good, and therefore, they can be used for future research in studying its impact.

### **8.2.2 Managerial Implications**

The data indicate that equity modes are preferred regardless of firm size; previous international experience has a significant negative effect on entry mode; and special abilities, market potential, investment risk and transaction costs are not found to have significant effects on entry mode choice. If managers want to invest in a foreign country, firm size should not be the factor to consider – the present research shows that both small and large firms tend to follow the same pattern of entering a foreign country. Their decisions should not be constrained by their previous experience either. In the present research, it is found that the less experience a firm has, the more likely it is that a firm will choose equity modes. If a firm uses the Internet to collect information for market research and to contact customers, non-equity modes tend to be more popular. However, if a firm uses the Internet to sell products and services online, equity modes are likely to be the choice.

When the performance of a firm is examined, it is found that market potential has significant positive impact on the performance of a firm. Before managers decide to



invest in a foreign country, they will try to collect sufficient information about its market potential. If the potential is high, it is likely that the firm will have a satisfactory performance in the future. Transaction cost is significantly negatively related to performance. This indicates that if costs of making contracts and enforcing contracts are high in a country, it is likely that a firm will have a poor performance. Having previous experience has a significant negative effect on the performance of a firm. The results encourage newly-established firms to use the Internet for international business since it can improve firms' performance. The present research shows that firms that are based in their home country perform better than those that have foreign operations. Accordingly, if firms are not ready to cross national borders for international business, it is better to wait. Results also show the significant role of Internet usage in the performance of a firm. The more a firm gets itself ready and uses it properly, the better performance a firm has. One of the most interesting findings is that having online payment facilities is found to bring more online sales to a firm; but it does not improve the performance significantly.

### **8.3 LIMITATIONS OF THE PRESENT RESEARCH**

#### **8.3.1 Limited Generalisation**

From the nature of the sample, the generalisation is limited. First, the survey was conducted among 569 firms in Hong Kong. There were 88 valid completed questionnaires that were used in data analysis. Although the number of observations has met the statistical requirements, the generalisation is limited. Secondly, all firms that participated in the survey operate in Hong Kong. They might follow certain

patterns when pursuing international expansion. For example, China is likely to be their first choice in setting up a foreign operation. The reasons might be that China is geographically and culturally close to Hong Kong and the language barrier is lower to China than to other European or American countries. Therefore, only studying firms from Hong Kong gives a low potential for generalisation.

### **8.3.2 Alternative Causal Inference Ruled Out**

Among the 569 firms that participated in the survey, 368 firms are clothes manufacturers, 55 firms are transportation providers, and 146 firms are hotels and travel agencies. The reason why these 3 industries were chosen is that for more than one decade, they have been among the top three exporters of domestic products and services in Hong Kong. However, differences should be noted among them. First, the resource requirements of setting up equity operations in a foreign country are different for a manufacturer, a hotel, a travel agency and a transportation provider. Secondly, these different requirements may lead to different perceptions of investment risk, market potential and transaction cost. Therefore, the use of a cross-sectional design limits the ability to rule out alternative causal inferences.

### **8.3.3 Categorisation of Entry Modes**

Entry modes were divided into two broad categories in the present research, equity and non-equity modes. Although this method was selected according to the previous studies (e.g. Contractor 1984; Erramilli and D'Souza 1993; Kwon and Konopa 1993; Pan and Tse 2000; Nakos and Brouthers 2002), it tends to mark potential differences



that may exist among various equity and non-equity modes, as discovered in Agarwal and Ramaswami (1992). However, the main reason why such a methodology was employed is that the data set did not allow a further breakdown of equity modes into joint venture and wholly-owned subsidiary. Only seven responses indicated that joint venture was chosen for their international expansion.

### **8.3.4 Measurement Problems**

#### **8.3.4.1 *Previous International Experience***

A measure of international experience was used as a firm-specific advantage, following previous studies (e.g. Agarwal and Ramaswami 1992; Nakos and Brouthers 2002). It was measured by the number of years spent serving foreign customers before the Internet was adopted. Some scholars (e.g. Padmanabhan and Cho 1999) suggest that experience with specific entry mode types may influence entry mode choice. For example, if a firm has experience of launching a joint venture, it may have a preference for or against a joint venture. Therefore, future research may explore how previous experience with specific entry modes may impact future entry mode decisions.

#### **8.3.4.2 *Investment Risk***

Investment risk was not initially included in the questionnaire. The reason was that the indicator of investment risk published by some organisations had been used in many studies. The present research intended to follow such an approach. However, when data was analysed, it was discovered that some respondents did not provide the

countries where their products and services were sold and some of them specified a continent rather than a country, which made it difficult to use the country risk indicators. Fortunately, there were four items that were designed to measure transaction cost, but factor analysis results showed that these four items belonged to two constructs. Two of them were about costs incurred in making and enforcing a contract in a foreign country and the other two were about costs incurred when know-how was transferred in a foreign country. According to Meldrum (2002), such a risk as transfer cost is one type of investment risk. Thus, these two items were used to represent investment risk as a final compensation, although it is insufficient having only two items to measure investment risk. In future studies, more items such as political risk, exchange risk, location or neighbourhood risk, sovereign risk and economic risk should be included to measure investment risk so that its effects can be fully explored.

#### **8.3.4.3      *Internet Usage***

The present research proposed a method to measure Internet usage. The method was to follow suggestion in the literature for operationalisation, then to endorse the measures in pilot case studies and finally to validate by using factor analysis. The research results confirmed the measures of three types of Internet usage, 1) getting ready for Internet business by providing information of the firm, products and services on line; and appointing web-based customer service personnel; 2) using the Internet to collect information for market research and to contact customers via the web; 3) selling products and services online. Such results from the factor analysis



were subsequently used for regression analysis. However, the method might limit the explanatory power of Internet usage in the regression model. For example, Dutta and Segev (1999) proposed a different method to classify Internet usage based on the basic concepts in marketing. They are 1) to improve customer relationships; 2) to disseminate products and services information; 3) to disseminate price information; 4) to dissemination distribution information and 5) to promote products via the web.

## **8.4 FUTURE RESEARCH DIRECTIONS**

During the course of the present research, a number of issues arose. They could not be researched in the present one, but they may be interesting for future research.

- i. The present research has validated measures of four types of Internet usage. Future research may use them to further study its impact.
- ii. The present research has examined the impact of Internet usage and other traditional variables on entry mode choice. Future research may broaden our understanding by investigating their inter-relationships or their combined effects. For example, Arnott and Bridgewater (2002) posit that some variables such as firm size, industry type, and geographic region influence Internet usage.
- iii. The present research was conducted in a less developed country. Future research is appreciated to investigate firms in a developed country so that the impact of Internet usage on entry mode choice can be fully understood.

- iv. The present research has confirmed that Internet penetration has a positive effect on entry mode choice. Further research may investigate the combined effects of Internet penetration and the GDP in a country on international business.



## 9 EPILOGUE

All data was gathered in Hong Kong, which is now effectively closed as a result of Severe Acute Respiratory Syndrome (SARS). If the present research had been conducted after February 2003, when the first case of the disease in Hong Kong was identified, the crisis would have distorted both the collection process and the data itself.

Since the outbreak, many Hong Kong travel agents have ceased trading as a result of World Health Organisation (WHO) warning against travelling to the region, creating a much smaller population of businesses from which sample could be drawn for the present research. Moreover, response to the questionnaire might reflect the general climate of paranoia, which currently obtains in the territory. But perhaps most importantly, one might expect an abnormal increase in the Internet usage during such a crisis, or adoption of new habits to compensate: inter-personal contacts are being eschewed from fear of contagion, and strict quarantine is disrupting conventional entry modes. The president of the Chinese Manufacturers Association, Mr Wing-Kee Chan, said some overseas businesses are now refusing to correspond by mail with Hong Kong companies, preferring to communicate only by e-mail. It must be pointed out that none of the above issues have affected the present research, since collection was completed by January 2003.

Entry mode perspectives largely neglect the impact of new communication technologies such as the Internet. We have seen how a phenomenon such as SARS can affect entry mode. Clearly, a new communication technology such as the Internet must have far-reaching implications for this area.



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## **11 APPENDICES**

### **APPENDIX I COVER LETTER I (ENGLISH VERSION)**



Dear Sir/Madam,

19/09/2002

Do you still remember what happened over the last two years in Hong Kong?



In March, 2000

People were queuing for hours to subscribe the stock share of Tom.com.



In September  
2000 - April,  
2001

The stock share of Tom.com plunged more than 50% in the fourth quarter of 2000. Not long later, Adm@rt announced a 1-billion-dollar loss, and Renren.com was acquired.

You may ask 'What can the Internet do to traditional companies like us if we launched a web site simply for information dissemination, or communication, or advertisement?'



We are now conducting an academic research under the direction of Dr Sue Bridgewater to investigate in what ways the Internet can be used to help traditional businesses better compete in

In order to find the answers, we need **8** minutes of yours to participate in the survey. As enclosed, you may find a questionnaire of two copies, one in English and one in Chinese. Please choose one to fill in and then send it back to us with the self-addressed envelope provided. We can assure you that all data provided will be kept confidential. We will send you a summary report once the research is completed, which we wish useful for your company to better use the Internet.

Thank you very much.

Sincerely,

Ms Helen Chen  
Department of Marketing and Strategic Management  
Warwick Business School  
University of Warwick  
Coventry, CV4 7AL, UK  
Tel: (44) 24 7652 2393  
Fax: (44) 24 7652 4650



**APPENDIX II**

**COVER LETTER I (CHINESE VERSION)**



敬啓者，

您還記得過去的兩年香港發生過什麼嗎？



2000年三月

人們排長龍認購Tom.com  
的股票。



2000年九月-  
2001年四月

Tom.com的股票在2000年的第四季  
度縮水50%。不久之後，Adm@art宣  
佈虧損10億圓港幣。Renren.com繼  
而被人兼併。

您也許會問 ‘我們只是一間傳統的公司，建立網址是爲了在網路(Internet)上發佈有關公司和/或產品和/或服務的資訊，或與客戶(顧客)在網路上聯繫，互聯網可以爲我們公司做什麼呢？’



我們現正在Sue Bridgewater 博士的指導下做 一項有  
關互聯網的研究，看看到底公司如何使用互聯網可以  
提高公司在國際市場的競爭力。

可是，要找到答案我們需要您參與這項研究。您的參與是花**8分鐘**的時間填寫一份問卷。問卷有中文版和英文版，請選擇一份填寫。填寫完畢後請將填寫好的問卷放在回郵信封中寄回給我們。您提供的所有資料，我們都會保密。我們會在本研究完成後，寄一份報告給貴公司，希望可以幫助貴公司更好地應用互聯網。

多謝。

此致  
執事先生(女士)

陳小紅  
英國華威大學商學院市場學與戰略管理系  
電話：(44) 24 7652 2393  
傳真：(44) 24 7652 4650



## **APPENDIX III      QUESTIONNAIRE (ENGLISH VERSION)**



Instruction to respondents

In this questionnaire, Internet business refers to your firm’s commercial use of the Internet, e.g. dissemination of company/product/service information, communication with business partners and customers via email, selling products/services on line, etc. In this questionnaire, if you come across ‘□’, please tick whichever response is appropriate. On numbered scales (1-7), please circle one number that most accurately represents your experience. Thank you.

Section I Before the (first) firm web site was launched

1. In which year was the firm established?
2. Do you provide a product or service?

☐ Product☐ Service
3. Pre-Internet, please record:

a) Number of full-time employees

b) Sales volume

HK\$
4. Did you serve foreign markets before adopting and using the Internet?

☐ Yes☐ No

(If your answer is 'No', go to Q8 directly)
5. How many years was the firm involved in international business before adopting and using the Internet?Years
6. In how many countries did you sell your product or service before adopting and using the Internet?
7. What percentage of total sales/profits came from pre-Internet international business?

% of total sales% of total profits
8. How would you rate your firm’s ability to:

a) Provide training to prepare personnel to conduct Internet business

None

1234567

Excellent

b) Use the Internet in an efficient way

Low

1234567

High

c) Develop the technological ability to handle international expansion via the Internet

Low

1234567

High

d) Develop managerial knowledge to handle international expansion via the Internet

Low

1234567

High

e) Develop the financial ability to handle international expansion via the Internet

Low

1234567

High
- 288



f) Develop an overall ability to compete in international 

Low	1	2	3	4	5	6	7	High
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Section II After the (first) firm Web site was launched

9. When was the firm’s (first) web site launched? \_\_\_\_\_

10. To what extent were financial resources invested in Internet business? 

Not at all	1	2	3	4	5	6	7	Substantial
------------	---	---	---	---	---	---	---	-------------

11. To what extent were human resources invested in supporting Internet business? 

Not at all	1	2	3	4	5	6	7	Substantial
------------	---	---	---	---	---	---	---	-------------

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

12. Can your products or services be distributed on the Internet? If ‘yes’, 

<input type="checkbox"/> All	or	<input type="checkbox"/> Some of your products?
------------------------------	----	---

 (Specify which \_\_\_\_\_)

13. Has any new foreign operation been set up since the introduction of the web site? 

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

 (If your answer is ‘No’, go to Q14)

\* Is this a 

<input type="checkbox"/> Joint venture	or	<input type="checkbox"/> Wholly-owned subsidiary?
--	----	---

 If others, please specify \_\_\_\_\_

\* In which country is this new operation located? \_\_\_\_\_ (Please skip Q14)

14. In which foreign country is the largest proportion of your product or service sold? \_\_\_\_\_

15. How would you rate the Internet business in the above country with respect to:

a) Customers’ acceptance of Internet business	Low	1	2	3	4	5	6	7	High
b) Other firms’ acceptance of Internet business	Low	1	2	3	4	5	6	7	High
c) Government’s acceptance of Internet business	Low	1	2	3	4	5	6	7	High
d) The popularity of Internet business in your industry	Low	1	2	3	4	5	6	7	High
e) The market potential of Internet business	Low	1	2	3	4	5	6	7	High

16. How would you rate the contractual risk in the above country?

a) Compared to that of Hong Kong, how would you rate the costs of making contracts in the above country? 

Lower	1	2	3	4	5	6	7	Higher
-------	---	---	---	---	---	---	---	--------

b) Compared to that of Hong Kong, how would you rate the cost of enforcing contracts in the above country? 

Lower	1	2	3	4	5	6	7	Higher
-------	---	---	---	---	---	---	---	--------

c) Are you sure that your standards of quality of products/service will be maintained in a joint venture in the above country? 

Not at all	1	2	3	4	5	6	7	Very much
------------	---	---	---	---	---	---	---	-----------

d) What do you think is the risk of your know-how being misused if it is disseminated in a joint venture in the above country? 

Low	1	2	3	4	5	6	7	High
-----	---	---	---	---	---	---	---	------



17. Use of the Internet in the firm

1) a) To what extent do you use the Internet to collect information for product development?	Not at all	1	2	3	4	5	6	7	Substantially
b) How much do you use the Internet to collect information about your customers?	Not at all	1	2	3	4	5	6	7	Substantially
c) How much do you use the Internet to collect information about your competitors?	Not at all	1	2	3	4	5	6	7	Substantially
2) a) Among total customer service in the firm, how much is provided on the Web?	None	1	2	3	4	5	6	7	A lot
b) Among total customer-client contact in the firm, how much is made via email?	None	1	2	3	4	5	6	7	A lot
c) Among total feedback from your customers/clients in the firm, how much is received on the Web/via email?	None	1	2	3	4	5	6	7	A lot
d) Among total employment in the firm, how many positions are dedicated to Web-based customer service?	None	1	2	3	4	5	6	7	A lot
3) a) How much information about the firm is disseminated on the web site?	None	1	2	3	4	5	6	7	A lot
b) How much information about the products/services is disseminated on the web site?	None	1	2	3	4	5	6	7	A lot
c) To what extent do you think the firm aims to have an international presence on the Web?	Not at all	1	2	3	4	5	6	7	Substantially
4) a) Do you have on-line payment facilities on the web site?	<input type="checkbox"/> Yes	<input type="checkbox"/> No							

18. Performance of the Firm

a) To what extent are foreign sales obtained on the web?	Not at all	1	2	3	4	5	6	7	Substantially
b) To what extent do foreign customers get to know about the firm through the web site?	Not at all	1	2	3	4	5	6	7	Substantially
c) How much extra investment has been made on Internet business since the introduction of the web site?	Not at all	1	2	3	4	5	6	7	Substantially
d) The firm has been very profitable.	Disagree	1	2	3	4	5	6	7	Agree
e) The firm has generated a high volume of foreign sales.	Disagree	1	2	3	4	5	6	7	Agree
f) The firm has achieved rapid growth.	Disagree	1	2	3	4	5	6	7	Agree

END OF QUESTIONNAIRE

Thank you very much. Please make sure you have answered all questions before you send it to us with the envelope provided. If you would like to have a summary report, please provide your email address: \_\_\_\_\_

**APPENDIX IV                      QUESTIONNAIRE (CHINESE VERSION)**



問卷填寫說明

互聯網貿易 (Internet Business) 在本問卷中指貴公司商業性地使用互聯網，例如在網路上發佈有關公司和/或產品和/或服務的資訊，或與客戶(顧客)在網路上聯繫，或在網路上售物等。填寫本問卷時，如果您遇到'□'，請在適當之處劃勾；如果您遇到1 - 7 七個等級, 請選擇一個最能反應您的看法的等級。謝謝！

第一部份 貴公司的 (第一個)網址成立之前

1. 貴公司是哪一年成立的?

\_\_\_\_\_年

2. 貴公司提供的是產品還是服務?

☐ 產品      ☐ 服務

3. 請問貴公司網址成立前一年

a) 全職職員總數

\_\_\_\_\_

b) 銷售額

港圓\_\_\_\_\_

4. 貴公司網址成立之前有外國客戶(顧客)嗎?

☐ 有      ☐ 沒有

(如果您的答案是'沒有', 請直接回答Q8)

5. 貴公司網址成立之前對外貿易/對外經營共有多少年?

\_\_\_\_\_年

6. 貴公司網址成立之前外國客戶(顧客)共來自多少個國家?

\_\_\_\_\_個

7. 貴公司網址成立之前對外貿易銷售額佔總銷售額/總利潤的百分比是多少?

佔總銷售額的\_\_\_\_\_%;

佔總利潤的\_\_\_\_\_%

8. 公司的能力

a) 你對貴公司提供給其職員的有關互聯網貿易的培訓計劃評價如何?

沒有    1   2   3   4   5   6   7    很好

b) 你對貴公司創造優良互聯網貿易的能力評價如何?

低        1   2   3   4   5   6   7        高

c) 你對貴公司用互聯網貿易進軍國際市場的技術能力評價如何?

低        1   2   3   4   5   6   7        高

d) 你對貴公司用互聯網貿易進軍國際市場的管理能力評價如何?

低        1   2   3   4   5   6   7        高

e) 你對貴公司用互聯網貿易進軍國際市場的財力評價如何?

低        1   2   3   4   5   6   7        高

f) 總括而言, 你對公司在用互聯網貿易上的競爭力評價如何?

低        1   2   3   4   5   6   7        高

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第二部份 貴公司的 (第一個)網址成立之後

9. 貴公司的(第一個)網站是哪一年成立的?

\_\_\_\_\_年

10. 貴公司在互聯網貿易上投入多少資金?

非常少 1 2 3 4 5 6 7 非常多

11. 貴公司在互聯網貿易上投入多少人力?

非常少 1 2 3 4 5 6 7 非常多

12. 貴公司的產品/服務可以在網上傳遞嗎? (如. 網上軟件)

☐ 可以

☐ 不可以

(如果您的答案是'可以', 請問是

☐ 全部 還是 ☐ 部份?

請列其況 \_\_\_\_\_)

13. 自公司網址成立後, 貴公司有在外國成立新的分公司嗎?

☐ 有

☐ 沒有

(如果您的答案是'沒有', 請直接回答Q14)

\* 如果您的答案是'有', 請問是 ☐合資企業 還是 ☐獨資企業? 或 ☐其他, 請列\_\_\_\_\_

\* 請問在哪個國家(地區)? \_\_\_\_\_ (請跳過Q14)

14. 貴公司的產品/服務最多銷售到哪個外國市場? \_\_\_\_\_

15. 互聯網貿易在上述外國市場的潛力

a) 你認為在上述外國市場消費者接受互聯網貿易的程度如何?

低 1 2 3 4 5 6 7 高

b) 你認為在上述外國市場其他公司接受互聯網貿易的程度 如何?

低 1 2 3 4 5 6 7 高

c) 你認為在上述外國市場政府接受互聯網貿易的程度如何?

低 1 2 3 4 5 6 7 高

d) 在上述外國市場,互聯網貿易在貴公司的同行業中普遍嗎?

不普遍 1 2 3 4 5 6 7 很普遍

e) 你認為互聯網貿易在上述外國市場的市場潛力如何?

低 1 2 3 4 5 6 7 高

16. 在上述外國市場的合約風險

a) 與香港相比, 你認為在上述外國市場爲了簽訂合約所付出的成本是否更高?

低於 1 2 3 4 5 6 7 高於

b) 與香港相比, 你認為在上述外國市場執行合約的成本是否更高?

低於 1 2 3 4 5 6 7 高於

c) 如有機會與其他公司合資, 對於貴公司的產品/服務質素不變你有多大把握?

非常小 1 2 3 4 5 6 7 非常大

d) 如有機會與其他公司合資, 你認為貴公司的專門知識被濫用的風險有多高?

低 1 2 3 4 5 6 7 高

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17. 貴公司如何使用互聯網

1) a) 貴公司用互聯網收集多少可用於發展產品的資訊?	沒有	1	2	3	4	5	6	7	非常多
b) 貴公司用互聯網收集多少可用於了解客戶的資訊?	沒有	1	2	3	4	5	6	7	非常多
c) 貴公司用互聯網收集多少可用於了解競爭對手的資訊?	沒有	1	2	3	4	5	6	7	非常多
2) a) 貴公司有多少顧客(售後)服務是在網上提供的?	沒有	1	2	3	4	5	6	7	非常多
b) 貴公司聯絡客戶(顧客)有多少是用Email的?	沒有	1	2	3	4	5	6	7	非常多
c) 有多少顧客反饋來自互聯網或Email?	沒有	1	2	3	4	5	6	7	非常多
d) 貴公司指派多少職員負責網上顧客服務?	沒有	1	2	3	4	5	6	7	非常多
3) a) 貴公司在網上透露多少有關公司的訊息?	沒有	1	2	3	4	5	6	7	非常多
b) 貴公司在網上透露多少有關公司產品或服務的訊息?	沒有	1	2	3	4	5	6	7	非常多
c) 你認為貴公司在多少程度上希望有一個良好的網上形象?	沒有	1	2	3	4	5	6	7	非常多
4) a) 貴公司的網站有網上付款系統嗎?	<input type="checkbox"/> 有							<input type="checkbox"/> 沒有	

18. 公司的效益

a) 貴公司的外國銷售有多少是從在網上得到的?	沒有	1	2	3	4	5	6	7	非常多
b) 貴公司的外國客戶(顧客)中有多少是從網上了解到貴公司的?	沒有	1	2	3	4	5	6	7	非常多
c) 貴公司自網址成立後在互聯網貿易上新增加了多少投入?	沒有	1	2	3	4	5	6	7	非常多
d) 公司生意很好，很賺錢。	不同意	1	2	3	4	5	6	7	同意
e) 公司的外國銷售非常好，銷售額非常多。	不同意	1	2	3	4	5	6	7	同意
f) 公司的規模迅速擴大。	不同意	1	2	3	4	5	6	7	同意

問卷完畢，謝謝！

請確認您回答了所有的問題，然後將填寫好的問卷裝入回郵信封中寄

回給我們。如您需要分析報告，請在此提供您的Email地址

\_\_\_\_\_。

**APPENDIX V      COVER LETTER II (ENGLISH VERSION)**



1 November, 2002



Dear Sir or Madam,

We are requesting your participation in a survey, following our mail sent to you in early October. The purpose of the survey is to gather information for my doctoral research on how different usage of the Internet influences a firm's foreign market entry mode and the performance of firms. This research projected is partially funded by the University of Warwick, UK.

**Your motivation to complete the questionnaire.** Show your support to one of few studies about Hong Kong economies in the UK.

**Who to complete the questionnaire?** Any manager that knows how the Internet performs in your company is the ideal respondent to the questionnaire. Alternatively, you may pass it to the managing director or the boss to fill it in.

**How to complete the questionnaire?** There are two copies of questionnaires as attached, one in Chinese and one in English. Please choose one version that you feel easier to complete. Once it is completed, you may fax it back to me at (44) 24 7652 4650 or send it with the envelop provided.

**Use of the survey information.** All information you provide will be protected as confidential information according to the research regulation of the University of Warwick.

**Benefit of your company.** The benefit of your company is to receive a summary report of the research once it is completed. It will be helpful for your company to improve the efficiency of using the Internet.

**Any query?** If you have any query about how to complete the questionnaire, please email me at [phd98hc@wbs.warwick.ac.uk](mailto:phd98hc@wbs.warwick.ac.uk); or call me at (44) 24 7652 2393.

Thank you for your co-operation.

Sincerely,

Helen Chen  
Department of Marketing and Strategic Management

## **APPENDIX VI      COVER LETTER II (CHINESE VERSION)**



敬啓者，

我們再一次衷心希望您能參與我們的研究。本研究的目的是收集有關資料以研究互聯網(Internet)的使用對公司進入國際市場有何影響，對公司的業績有何影響。本研究得到英國華威大學 (the University of Warwick)的部份資助。

填寫本問卷的動力？ 在英國，有關香港商業和管理方面的研究並不多；填寫本問卷是您對爲數不多的這類研究的支持。

誰適合填寫本問卷？ 任何了解互聯網(Internet)在貴公司的運作的經理，都是最佳人選。當然，貴公司的總經理和執行總裁也可以填寫本問卷。

如何填寫？ 本問卷分中，英文兩個版本，請選擇一個您覺得容易的版本填寫。填寫完畢後，請發傳真給我，傳真號碼 (44) 24 7652 4650；或者請用回郵信封將填寫好的問卷寄回給我。

我如何處理您提供的資料？ 所有資料將按照英國華威大學有關學術研究資料的保密規定加以保護，不對外泄漏。

貴公司得益之處。在本研究完成後，將會有一份研究報告寄給貴公司，報告會展示貴公司如何可以更好地運用互聯網(Internet)。

如有誼詢，請致電 (44) 24 7652 2393，或 Email我 (helen.chen@wbs.ac.uk)。

謝謝您的協助。

此致

執事先生(女士)

陳小紅  
英國華威大學商學院  
2002年11月10日